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The American Journal of Clinical Medicine

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VOL. 13 AUGUST, 1906 NO. 8

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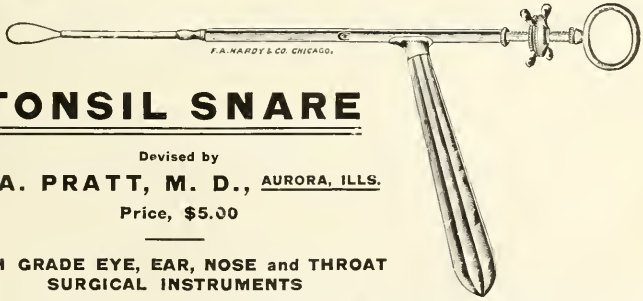

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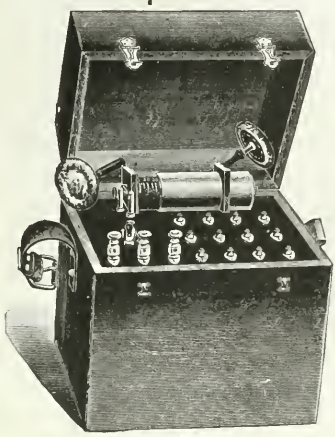

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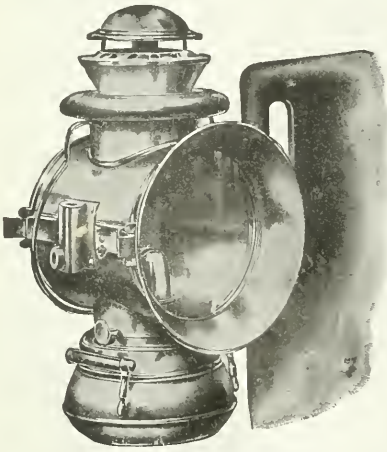

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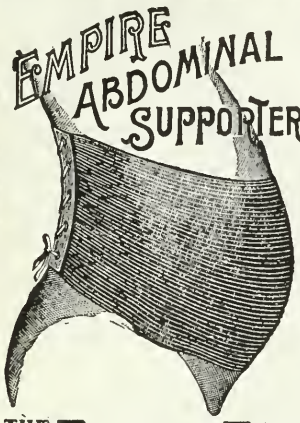

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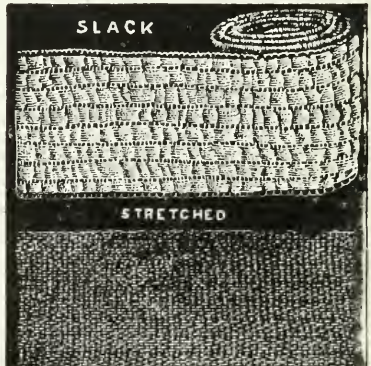

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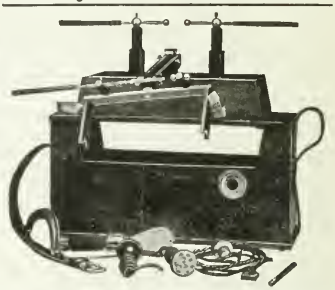

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CONTENTS OF JUNE ISSUE.

Hernia. WILLIAM B. COLEY, M. D., Asst Clin Lecturer on Surgery, College of Physicians and Surgeons, New York.

Gynecology. JOHN G. CLARK, M. D., Professor of Gynecology in the University of Pennsylvania.

Abdominal Surgery, excluding Hernia. EDWARD M. FOOTE, M. D., Instructor in Surgery, Columbia University; Chief of Clinic, Vanderbilt Clinic, Department of Surgery, New York.

Diseases of the Blood, Spleen, Thyroid Gland and Lymphatic System. ALFRED STENGEL, M. D., Prof. of Clinical Medicine in the University of Pennsylvania.

Ophthalmology. EDWARD JACKSON, M. D., Denver. Emeritus Professor of Ophthalmology, Philadelphia Polyclinic.

Index.

The March Volume contained:

Surgery of the Head, Neck and Chest — Diseases of Children— Infectious Diseases—Laryngology—Rhinology and Otology—Index.

Full prospectus with names of all Contributors will be sent on request to the Publishers.

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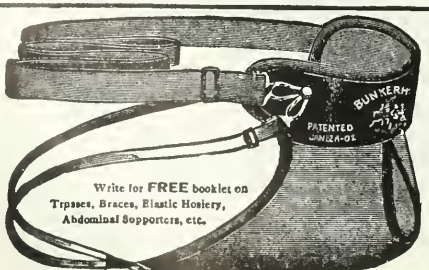

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The dose is cumulative and has to be decreased. It is useful for increasing the body weight through its efficiency in incressing the flow of bile. The best results are secured by preceding it or combining with an active Cathartic, twenty-four hours before commencing consecutive treatment.

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The AMERICAN JOURNAL of CLINICAL MEDICINE

Vol. 13. AUGUST, 1906 No. 8.

AN APPEAL TO THE TEACHERS OF THERAPEUTICS AND PRACTICE IN OUR MEDICAL COLLEGES.*

OLD-FASHIONED, uncertain, empiric drug therapeutics is dead. It can not be resuscitated. Both profession and public have lost faith in it, and nothing is to be gained by sifting the mass of cinders.

Mechanical and indirect therapeutics, Christian science, Dowieism and other fakes rule and you know it. The activity of our profession is absorbed in exploiting anything and everything except drugs. The indirect, miscalled physiologic therapeutics can never form a complete system. It is uncertain, tedious, strictly empirical, and far too expensive for the vast majority of our patients. Drugs must continue to form the greater part of our practice, as the most direct, prompt and generally applicable means of restoring health.

The old drugs are not good enough. Uncertain, slow, nauseous, their scientific application is impossible! Modern conditions demand something better, and that "better" we have in the pure active principles, which possess every condition for truly scientific and satisfactory therapeutics —certainty and uniformity of action, precision of direction, promptness of effect, minimal size and taste of dose, absolute ethical standing as being free from secrecy or monopolistic control, and capability of all methods of administration.

The greatest advantage accruing from their use is, however, the alteration worked in the physician himself—the optimism, direction of attention to the patient, study of physiology and pathology necessitated, the habit of prompt and vigorous intervention as the opportunity is recognized, and consequent improvement as a practician.

Fifty thousand American physicians, now on our lists, are studying the merits of the active principles and putting them to practical tests. In eighteen months there has not been one in which more than 1000 new subscribers to our journal were not added to its list, men with the musket who are doing the best medical work of the world. Hundreds, if not thousands, have personally testified to us of the satisfaction they have found in the practice of medicine since they began to use these new agents (ready to dispense) and the success-methods made possible through them.

These results have been won by a small group of men of by no means exalted qualifications but penetrated with the vital faith in their propaganda, knowing they were right and disregarding all discouragements, pushing resolutely forward in the path they

*We are sending a marked copy of this JOURNAL to every recorded teacher of Therapeutics and Practice in the English speaking world—to you! What are you going to do about it? Where do you stand?

had marked out. The movement has been retarded most powerfully by the commercial interests that are affected by the reform, and by the strictly ethical nature of the means employed. Had secrecy been adopted or a new separatist school been formed, or the matter laid before the laity, our success would, undoubtedly, by this time have been overwhelming.

Is it a mere shrewd commercial enterprise? So long as the alkaloids obtainable in the open market differ greatly in relative strength, so long will it be necessary that with our advice to use these agents there shall be also a source for their supply of absolutely uniform and unchanging quality. Without such a supply the movement would be a mere academic one, with no vitality, nonpracticality. To this extent "commercialism" is an absolute necessity, and can not be avoided. Let those whom this note annoys consult an oculist. When the U. S. Pharmacopeia shall have established a standard strength for these remedies and they can be procured on physician's prescriptions in such standard quality at any pharmacy, supply houses may retire from the business part of their work. Until then, in the interest of true therapeutics they must continue their present labors. Through these we are enabled to make the proposition that follows:

Our watchword is "Forward!" We shall do our part. We need your help. We want every man who is teaching Therapeutics and Practice to add his strength to this movement. We want you to select any of these remedies in which you feel any interest, or have an opportunity to investigate, and make such studies as you can, and give us the results. We are ready and anxious to pay the expenses of such investigations. We ask for not the slightest commercial endorsement or advantage. We want to do just such work as your position as a teacher of this important department warrants us in asking of you, made on any definite active principle you may select, one that is absolutely open and not monopolized by any supply house, and let us publish the full report of your investigations in this journal—CLINICAL MEDICINE.

If you have the opportunities and the inclination for such work we ask that you will open correspondence with us. If there is anything in progress for you, for God's sake, wake up! The entire medical profession needs your help.

"MANNA" FROM HARVARD*.

Dr. Frederick C. Shattuck is Professor of Clinical Medicine in Harvard University and his address on the Value of Drugs in Therapeutics is notable in several respects. It is notable first, for its healthy anti-nihilistic appreciation of drugs in the treatment of disease. While we believe that Professor Shattuck puts rather too narrow limitations on the value of drugs, still, coming from a Harvard professor, we must be satisfied with small favors.

This address is notable in the second instance for its having been delivered before a homeopathic body—The Boston Homeopathic Medical Society—thus offering us further proof that the chasm between the various medical "schools" is being bridged over, the bands of union becoming closer and more numerous. And thirdly and more important, the address is notable for teaching—just exactly what we have been teaching these many years. Let us hear what Dr. Shattuck says. "It seems to me, he

*"Out of the eater came forth meat, and out of the strong came forth sweetness."

Tuberculosis is the only general infection over which the resistance of the organism has well marked influence.—*N. Y. M. J.*

In hemorrhagic malarias Newell says adrenalin will not prevent the chill but prevents the severe congestion.—*N. O. M. & S. Jour.*

says, that the leading therapeutic principles can be stated somewhat as follows:"

First. "Do no harm. This principle seems to be well met by the homeopathist who uses the infinitesimal dose. He does no harm save in so far as he may miss doing good."

And it is still better met by our teaching, to start with small—not infinitesimal—doses of the best procurable drug and give it until results are *seen*.

Second. "Try to see as clearly as possible just why you give a drug, your purpose in giving it, whether as a specific, curative, palliative, or as a placebo."

Exactly what we have been teaching for years—give each drug only for a definite indication.

Third. "As far as you can, give a drug uncombined. This is a general rule subject to many exceptions. Rules, however, are made to break. They are our servants, though we too often allow them to be our masters. But in breaking rules we must use our brains, an exercise which most of us avoid as far as we can."

Another therapeutic truth which we have been teaching for many years, and which we could not express in a better manner if we tried. We have always taught and asked the profession to administer drugs singly whenever possible, but not being faddists, not being wedded to one idea, we recognized that there are instances in which a combination of drugs acts better than any one single drug can, and in such cases we advocated a combination of drugs. We know that one drug may act synergistically with another, or it can modify its action, diminish its undesirable by-effects, render it milder in one respect and stronger in another—in all such cases we never hesitated to advise a properly selected combination of drugs.

But in this paragraph (three) Dr. Shattuck really says more than he perhaps meant to say. "As far as you can, give a drug uncombined." Why does he say that? Because he wants a clear-cut action. And this is a direct plea for active-principle therapy. For opium is not an uncombined drug; to administer opium with its twenty odd alkaloids is almost as irrational as it is to combine twenty isolated alkaloids and administer them in one dose. Jaborandi or pilocarpus with its antagonistic alkaloids is not an uncombined drug. And when we want clear-cut, positive, definite action, we must administer the active principles.

Fourth (and last). "In using an efficient drug, be as sure as you can of a good preparation, and then give it until something happens—either the desired effect or evidence appears that the limit of toleration has been reached, what is called the physiological but what I should prefer to call the toxic effect. Disregard of this law is, I believe, responsible for many therapeutic failures."

This sounds very much as if it had been taken from some issue of The American Journal of Clinical Medicine. Small doses frequently repeated until effect—doesn't this sound familiar to you?

We will conclude with the closing paragraph from Dr. Shattuck's address, which might be well heeded by some of our ultra-scientific physicians: "Scientific medimedicine," says he, "is open to the danger of going to the extreme of therapeutic nihilism, of disregarding the individual, of forgetting that while our knowledge is imperfect and the big thing is to find out the true nature and cause of disease, the present day sufferer demands, and

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Burnett condemns the acute hyoscine poisoning method of treating morphine habits, advocating a delicate technic.

Swift, Nietzsche and Flaubert! None indulged in more reckless and unhygienic abuse of their bodies than these.—Gould, *Med. Record.*

has a right to demand, all the aid that our knowledge, imperfect as it is, permits."

In other words this means that while we are hunting about for the ultimate cause of disease, we must not permit our present patient to die, but must give him all the aid, no matter from what source obtained, all the help that our present day knowledge—*scientific or empiric*—affords.

THE LIGHTNING STROKE AND HOW TO TREAT IT.

Someone asked us recently to tell of the effects and the treatment of lightning strokes. We turned to our books and—where should we look? Practice, surgery, materia medica, accidents and emergencies? Our library is supposed to be pretty well stocked; it has aided us in replying to many thousands of queries annually for years, but now it seems to be silent. Finally, in Draper's "Legal Medicine" we found a very brief sketch. From it we abstract the following items of interest:

The U. S. Weather Bureau reports show that during five years ending 1904 there occurred 1120 deaths in this country from lightning, from April 1st to Sept. 30th. The mortality was greatest in the southeast. The risk is five times greater in the country than in the city. Of trees the oak is most frequently struck, the beech least frequently. Trees struck are standing free or at the edge of the forest. During thunderstorms dangerous places are under trees, in doorways, especially of barns, close to cattle, near chimneys or fireplaces.

There is little sense in seeking feather beds. Small bits of steel do not attract lightning. The approach of a storm causes a certain depression, but the apprehensions often felt are unwarranted. One who sees a lightning flash need not fear it, since the flash occupies but the 20,000th part of a second. It represents a potentiality of 3,604,000 volts. Most victims are men, and they are usually struck outside the house. Lightning does not always take the path of least resistance, but may leave a good conductor and spring across a stratum of air offering many thousand times more resistance. The flash is the core of the discharge and the center of danger, which radiates on all sides from it.

The effects of a stroke are so varied that no rule can be laid down. The freaks are extraordinary. Flammarion affirmed that no one could study the effects of lightning without seeing in it the work of a tricksy intelligence, sometimes malicious, at others wanton or sportive. Effects diametrically opposite have been produced. It may heal or harm; abolish sight, hearing, and voluntary motion, or restore these when lost. It may strip the body and consume the clothing while the body is uninjured, or consume the wearer without harm to his clothes. One may be hurled to a distance, another is found in the position when struck, but dead. One has limbs amputated, heart ruptured, bones comminuted, another shows no lesion. One has the muscles softened, lungs collapsed, blood fluid, another shows exactly the opposite. One body putrefies rapidly, another defies putrefaction for days. Stricken persons *have absolutely disappeared*, leaving not the slightest trace. (*Vide* Elijah's translation.)

One case is thus described: Three laborers took refuge from a storm, in a shed, one remaining outside to urinate. The window was blown out by a blaze of lightning and the tree against which the other man had stood was stripped of its bark, his boots at the foot of the tree, the man lying naked two yards away, with no clothing but part

Inflammation is the local attempt to repair injury; though it may sometimes overshoot the mark. —*Med. Record.*

Inflammation does not follow if we cut off all centripetal impulses from an injured part.—*Medical Record.*

of the left sleeve of his flannel shirt, although two minutes before he had been completely clothed, including a new pair of hobnailed boots. The clothes were scattered in all directions. The man had been hurled in the air but had not lost consciousness. His eyebrows, whiskers and beard were singed, the chest and belly displayed branching burns, down each thigh and leg a long burn, the right heel wounded and the os calcis comminuted, of the right leg a compound fracture, but he recovered. His jacket was split in two, his shirt in rags, burnt where the belt buckle and watch had touched it, flannel vest torn, trousers in two and all below the knees in ribbons, belt buckle burnt out, bootlaces lost, and eyelets burst, leather torn, right sole rent and heel partly torn off, one nail missing. The watch was burnt through as with a soldering iron, the chain almost destroyed. In a case seen by the writer the watch was fused and the money in his pocket was found in an irregular lump—some portion of two coins, however, being recognizable. Down his left cheek, side and leg ran a narrow blue streak and his shoe on that foot was ripped to pieces. The clothing was scorched and burned through wherever metal was in contact.

Among lesions caused by lightning are burns, ecchymoses, erythemas, impressions of metals on the skin, hair injuries, bone fractures, lacerations and punctures, and internal changes. Many injuries to the eye are described. The blood is always dark in death from this cause; exposure to air restoring its hue. In the worst cases it may be so disorganized as to give off gases. Almost any internal organ may show intense hyperemia or rupture. The lower limbs are affected most as a rule. Wet clothing may serve as a conductor and save the wearer's life. Metal objects, like knives, may be polarized, while many other curious facts have been observed.

Persons rendered unconscious by lightning may be regarded as victims of shock, and treated by artificial respiration, cold to the head, hot enemas, heat to the body and extremities, and sinapisms over the heart. If rigidity is present and cerebral hyperemia, a carefully watched venesection is indicated, if relaxed and anemic glonoin and atropine, with strychnine, are to be injected hypodermically. Alcohol is only injurious. Vigorous rubbing is always useful. The faradic and galvanic currents may be applied with benefit. Glonoin, digitalin to support, with strychnine to follow, constitute the medicinal therapeutics usually indicated.

Lightning, as well as all essential basal phases of the great force we designate "electricity," is really as yet very poorly understood, except in its manifestations. We know some things it does, but how it does it, what it is, is quite another thing.

BOSTON AND THE A. M. A.

The Boston meeting was in many ways a memorable one. The cluster of family hotels about Copley Square offered an ideal location, with fine meeting halls in the vicinity. The weather was good—for Boston; the first days oppressive, the last ones wet and chilly. The registration was far ahead of all previous records, nearing 5000, the exact figures not being published at the time of writing. The program in its immensity and interest was like a three-ring circus, offering attractions that necessitated one's being in many sections at once to take in all the good papers, which we sincerely regretted we could not do. Naturally our greatest personal interest centered in the Section on Pharmacology and Therapeutics.

In this section Dr. Osborne presented

Already existing inflammations are caused to subside rapidly through anesthetization of the inflammatory focus.—*Med. Record.*

When pain in nose-throat operations and during healing is suppressed by anesthetics no inflammatory reaction follows.—Spiess, *Med. Record.*

an admirable paper on the therapy of the thyroid preparations. We are not ready to admit some of his suggestions, such as the dependence of uremia on the failure of an internal renal secretion; our only criticism was as to his failure to consider the varying vasomotor conditions in exophthalmic goiter, the indications changing as the primary cardiac hypertrophy merges into connective-tissue hyperplasia.

It is to be regretted that other papers in this section did not approach the high standard set by this one. The attendance was small and the program seemed to be largely dominated by the pharmacists and their friends. To two of the papers read at this section we shall refer elsewhere.

Other sections of the Association showed in their work evidences of healthy progress. The section of Hygiene was especially well attended, and the symposia of absorbing interest. In the sections of Pediatrics, Stomatology, Neurology, Practice, in fact in every one there were papers of the highest order. The section of Obstetrics should be renamed that of Abdominal Surgery since nothing else was presented there. Nothing more important appeared anywhere than the investigations of MacNicholl on the moral conditions revealed by a study of 63,000 school children in the city of New York. Unfortunately such reports are buried in the transactions and do not lead to practical reforms. Dr. G. F. Butler's paper was especially commendable and should be given wide circulation.

In the section on Stomatology Talbot presented the results of his long and careful studies of the pathogenesis of Riggs' disease, or Pyorrhea alveolaris. He traces this to fecal autotoxemia, and that in a manner that leaves no room for argument, much less for contradiction. Dr. Talbot's strongly conservative bias gives additional weight to his conclusions. He will not speak prematurely, but when he does make up his mind he does not hesitate to say exactly what he has found to be true.

In the section on Practice perhaps the most valuable presentation was the symposium on heart diseases. The parties who undertook to describe the treatment of gonorrheal septicemia succeeded in listing a whole lot of useless measures, leaving out the easy and effective direct medication with calcium sulphide.

Among the numerous papers in the ophthalmology section we especially note Gould on Eyestrain, and de Schweinitz's admirable article on Autointoxication in Relation to the Eye. The latter shows what we may expect from a specialist whose vision is not circumscribed by his one pet organ. We shall watch for the publication of that paper.

Mayer's paper on Foreign Bodies in the Trachea was perhaps of greatest general interest of the laryngologists' program.

The surgeons overflowed every section, but the rising tendency to get back at them was shown by the paper of Rogers and Beebe on Treatment of Exophthalmic Goiter by a Specific Serum, whose surgic affiliations are not apparent. This paper should have been in the Therapeutic Section. The Pediatric Section seemed also to have deprived others of valuable material. Cotton's paper on Sodium Citrate in Infant Feeding was one of those studies for which the author is noted. J. M. Taylor gave a valuable study of Fever and the Place of Salines in Treatment.

In Pathology Sewell described experiments on venous blood pressure, and Beggey and McFarland gave some studies of Phagocytosis, all which will be well worth watching for. Of the forty papers in the Neurologic department none was heard with more interest than those of Moyer and Spratling

No skill is required to take the morphine from a habitue; any quack, ass, or fool, can do that.—Burnett, *Texas Cour.-Record.*

Medical horizon is dotted with unequipt sanatorial shacks where inexperienced, ignorant men, tamper with delicate threads of mentality.—Burnett.

on Epilepsy. The Dermatology sections might have been advantageously lengthened by adding the misplaced papers on the x-ray that crowded legitimate speakers out of the Therapeutic section, the program of the former having but twenty topics.

One of the liveliest meetings of the week was that of the Medical Editors' Association. These independent journalists have never assumed the attitude of holy and altogether righteous grand high and mighty moguls toward the advertising community, but have met the latter on fraternal terms, as of men whose true interests were identical. There is advantage in this attitude. If the advertiser incautiously treads on the professional corn a friendly caution will bring him back into the straight path, when open hostility might send him headlong into the ranks of the quacks. The advertiser who is not altogether a born imbecile wants to please the profession, and who is so well qualified to show him how as the journalist.

The papers at this meeting were so good that they should be printed by all the periodicals represented. The dinner was great. The speeches greater. The jolliest, wittiest, brightest of the profession; and if there is any project in view that contemplates extinguishing their independent journals, you may count us out of it.

TRUTH FLUSHED FROM COVER.

The following excerpt from *Therapeutic Notes*, will sound familiar to the readers of this journal. There is an old Coptic proverb to the effect that "Truth may be flushed in strange coverts," and the real, uncontrovertable and vital importance of the great truth we have been so long expounding can be judged when one of the greatest houses manufacturing old-fashioned fluid extracts, tinctures, and other official galenical medicines will print in its own organ facts which prove conclusively, in their own words, the utter worthlessness of many of the fluid preparations of drugs now on the market.

That this house "standardizes" some or all of its fluid extracts shows its desire to give the doctor reliable medicine. But how many physicians get standardized fluid extracts; indeed, how many doctors know what their patients get in the prescriptions given them? And if great manufacturers like these acknowledge that one shipment of drugs will contain double the quantity of alkaloid or active principle another contains, and that to make a fluid extract "worth while" at all it is absolutely essential to standardize and assay the product, why not drop such preparations at once and for all time, and use the active principles themselves in known quantities, thus positively avoiding mistake or possibility of nonefficacy?

The old objection, "some plants contain more than one active principle and to get the full effect we must have the fluid extract" does not hold; for, as we have repeatedly told you, and as all pharmacists as well as the manufacturers tell you, one sample of a drug will contain at one time a large percentage of one active principle and practically none of another, while the very next sample grown or kept under different conditions will show a reverse content. Therefore two most carefully prepared fluid extracts, if made from these two samples must be therapeutically entirely different. To make them even, to balance them up, to "standardize," the alkaloid or other active principle lacking must be added. And is this done? Are they standardized to all active-principle content; or only to the principal alkaloids, leaving the other principles to vary as they will? Let

I accept every morphine addict as a scheming, unreliable sort of a devil, red, white and blue, with surprises to be added.—Burnett, *Tex. Cour.-Rec.*

Morphinism: Secretions, excretions, mucosa, skin; tend to them first, last and all the time, is the therapic secret.—Burnett, *Tex. Cour.-Rec.*

the standardizer answer. The pharmaceutical methods of galenical manufacturers vary as much as do their products, but we believe the latter to be the method usually, if not invariably employed, and, therefore, as a matter of fact, their products are always variable.

Now we know the action of each active principle. If we want morphine action we give morphine, not trusting to there being enough morphine in a dose of tincture of opium to produce sleep. If we want heroin or codeine effect we give either in proper dosage and avoid the deleterious (in that particular case) action of the undesired active principles of opium.

Moreover we know that some drugs, like jaborandi, contain two or more active principles diametrically opposed to each other in their physiological action; if we give a fluid extract we get the effect of the predominant principle—and that perhaps is just the effect we do not want. Why not give the principle itself—either one or two, as may be desired? In fact why not, ourselves, in this generation, make medicine what it should, must and will in time be, a precise science, *now*, instead of leaving the glory to our children, not waiting for those that follow to win our glory and deride us for our folly?

Here is the evidence! We have iterated it and reiterated it for years and it sounds good to hear the echo from the great houses, as well as from the Pharmacopeia, which in its last edition does not longer fail to give warning in this direction. In fact this great work in its eighth decennial revision, recently issued, has introduced alkaloidal assays for the following drugs: Aconite, belladonna leaves, belladonna roots, cinchona, red cinchona, coca, colchicum corm, colchicum seed, conium, guarana, hydrastis, hyoscyamus, ipecac, jalap, nux vomica, opium, physostigma, pilocarpus, scopola and stramonium. In addition a number of alkaloids and active principles have been made official, including aconitine, cocaine, codeine phosphate and sulphate, colchicine, homatropine hydrobromide, hydrastine, pilocarpine nitrate, scopolamine hydrobromide, strophanthin, etc.

Here's the article:

STANDARDIZATION OF PHARMACEUTICAL AND BIOLOGICAL PRODUCTS.

At the very inception of our business we adopted the policy of looking primarily to quality and efficiency; and instead of merely complying with the directions of the Pharmacopeia, which simply stipulated the selection of the drug by more or less superficial means and the exhaustion of this by a given menstruum to the production of a stated yield, we went a step further and attempted to gain some insight into the value of the more powerful drugs by estimating their content of active constituents.

This work was attended with much expense and great difficulty because of the lack of satisfactory methods of procedure; for at that time pharmaceutical assaying did not command the brilliant talent which has been lavished upon it in recent years. Nevertheless we persevered, and consequently were soon able to arrive at comparative results. We found that different lots of such drugs as hyoscyamus, belladonna, nux vomica, cinchona, and others, varied widely in the proportion of active constituents, that in fact it was the exception rather than the rule to find successive lots of any given drug to be possessed of uniform activity.

In many instances one shipment would contain almost double the proportion of alkaloid or other active ingredient found in the preceding lot. Our drug assays, extending over a period of over twenty-five years, have been a continuous affirmation of this want of uniformity in crude drugs.

We were led by these results to begin an agitation for the assay of drug extracts and their adjustment to uniform strength, and in 1879 introduced the first standardized fluid under the name of "Liquor Ergotæ Purificatus;" from this beginning we had by 1883

A 2-cent stamp to the *Texas Courier Record*, Ft. Worth, will secure Ghent's paper on Abortion and Prevention of Conception.

Whence the frequency of heart disease among physicians? Constantly occupied with patients' health, they neglect their own.—Burggraeve.

developed a series of twenty assayed standardized fluid extracts which we listed under the distinctive name of Normal Liquids.

Since then we have extended the list until now it covers our entire line of important fluid, solid and powdered extracts and concentrations. That is to say, we assay and adjust all the galenical preparations of drugs which are ordinarily regarded as toxic or which are possessed of such activity as to require accurate dosage.

Our testing department has grown to such an extent that it now includes a large corps of able chemists and pharmacologists, with an equipment the best that money can buy. Our methods are the most accurate and progressive that the finest talent can evolve.

We have not had to contend with natural difficulties alone, for competing manufacturers, unwilling to shoulder the extra expense necessary to standardize their products, fought the theory of standardization by ridicule, misrepresentation, and pseudo-scientific polemics with an energy worthy of a better cause.

It is a source of no small gratification to us to note that our pioneer work in drug standardization prosecuted against indifference and hostility, and at great cost, has at last been honored by adoption in the United States Pharmacopeia. The Eighth Revision of this authoritative publication contains alkaloidal standards for all the more important drug extracts—standards that, in all cases in which they differed from those already adopted by us, we have made our own for the sake of conformity and a perfect understanding between druggist and physician.

The old idea is dying hard, but die it will to give place to the new birth. The doctor will not be content much longer to be misled by wornout theories or to use uncertain remedies. Truth will prevail! Even our friends, the fluid extract and tincture makers, allow the truth of the great basic principle upon which active-principle therapy rests. The publication in their trade literature of matter such as this proves that they recognize the inevitable and are making ready to meet the demand for positive therapeutics which our work has created!

In the same issue may also be found the following from Hare's "Therapeutics:"

Not long since several thousand pounds of ergot were found to be worthless on being tested physiologically by one firm; but it was put on the market nevertheless, for certain manufacturers do not employ this method of examination. Constant uncertainty is a dangerous element when dealing with patients who are desperately ill; and in many cases both failure and discouragement may be avoided if the *physician will see to it that the drugs which he administers are capable of doing what he requires of them.* A poor drug to a physician is worse than a rusty knife to the surgeon for the injury in one case is unknown, while in the other it can be carefully watched and guarded.

The words of this able author, as well as all the above, we endorse—and more: We say again, as we have said many times before, that the best way to get rid of this "dangerous element"—this uncertainty—is to use always the desired active-principles alone, or in known combination, unencumbered by confusing mixture with other plant principles of unknown action, in carefully measured and definite dose.

Does the physician who has become accustomed to active-principle medication ever go back to fluid extracts and tinctures? Never! Having seen the beauty of eliminating one element of uncertainty he will not stop until he eliminates all. And that's what we stand for—what we are fighting for! And that is what will ultimately prevail.

A STRONG ARGUMENT AGAINST THE USE OF GALENICALS.

When a pronounced advocate of active-principle therapy brings indisputable facts and arguments proving the unreliability of the crude plant and its galenical prepara-

Many physicians are skeptic of their own art because using the old way they see uncertainties and dangers.—Burggraeve.

Some put faith in specifics—as long as they cure. The latest thing, if it bears the stamp of magister dixit.—Burggraeve.

tions, and the unwisdom of their employment, his statements are often discounted. Why? Merely because he is known to be a follower of active-principle therapy, and it is therefore assumed that he must be partisan. This is very wrong. The question should be, not "who says a thing?" but "is the thing said true or untrue?" This should be the point in every controversy. But it will be a long time before people will learn to disassociate ideas and statements from their authors and judge them solely on their merits. Such is human nature and it is hard to change it. We, therefore, feel particularly gratified when we encounter unanswerable arguments against the use of the crude plants made *by men who are not in favor of the active principles*, but rather the contrary.

Such a man is the well-known botanist, Prof. J. E. Mattei, of Palermo, Italy. In a notable article printed in the *Monthly Cyclopedia of Practical Medicine* for May, he deplores the fact of the falling into disuse of the crude plants and their substitution by products of the chemical laboratory. But he himself gives the reasons why the disuse of the crude plants is inevitable, and why we are perfectly justified in mistrusting and abandoning them. To quote his own words: "Two causes have contributed to the abandonment of plants as medicinal remedies. The first is the rarity of certain plants, so that those selling them were not conscientious, and did not scruple to replace them with other similar in appearance, but where the effect was not the same. I, myself, have seen the leaves of verbascum sold for digitalis; of phytolacca instead of Atropa belladonna; the blossoms of tunla in place of arnica flowers; the flowers of anthemis in place of chamomilla; the roots of bryonia for calumba roots, etc."

The second cause is of far greater importance and refers to the great variability of the active constituents of a plant, depending upon numerous factors; these factors being the *place* or *altitude* where the plant grows, the *soil* on which it is cultivated, the *time* of collecting it, etc. He gives numerous examples of both medicinal and non-medicinal plants. "The same species," he says, "will show more active and energetic principles if gathered in mountainous alpine localities, and from an arid dry soil, than when taken from a richer and more moist earth. For instance, Achillea agerata gathered on our arid calcereous mountains has vermifuge qualities of remarkable power, which are entirely lost in plants gathered on the plains or near cities. The climate also influences and modifies the active principles of plants. So in Scotland and Sweden, hemlock contains a much less quantity of cicutine than in central Europe.

Aconite gathered on the summits of the Alps is inert in comparison to that obtained in a lower altitude. In other cases an access of humidity can render more active the principle of some plants. For instance, celery, when cultivated in dry fields is good to eat; if grown in marshy ground, on the contrary, it is acrid and unwholesome.

The soil has a great influence on the medicinal value of the leaves, flowers, and roots of a plant, which is demonstrated by chemical analysis. "Salsole," near the sea, is strong in soda; but inland it has only a small quantity. Rhubarb, when cultivated in France, contains much calcium, while that growing wild in the Himalayas has almost none. The time of gathering the leaves has also a great influence on their medicinal value; the leaves of many plants and trees are full

La pathologie—de l'avis de quelques-uns—n'est plus que le corollaire de la bacteriologie.

—Semmola.

The brain is nearest to death and the end of its usefulness, when it is no longer open to receive new truths.—Dewees.

of potash when in full activity of growth, and show lack of it when ready to fall. In the same way, the young branches possess active principles lacking in the older ones. The young leaves of Phytolacca decandra are good to eat, while the old ones acquire the properties of an emetic. The fruit of cherry laurel and of Atropa belladonna is very poisonous when unripe, but when mature, can be eaten without danger. The bulbs of colchicum have active medicinal qualities if gathered while sprouting, before being fully developed, while, on the contrary, the roots of angelica are only of value when gathered in winter, when the plant is without leaves. Analogously, the roots of Geum urbanum have active febrifuge qualities if gathered in the spring, and are inert and worthless at other times.

Digitalis grown in rocky, arid districts has very active cardiac qualities, but when cultivated in soil such as in gardens, becomes inert. The same may be said of hyoscyamus and many other plants. Certain species of lactuca are poisonous, when wild, and become edible when cultivated.

In short a plant is *not* a definite constant entity, and to speak of the action of a whole plant is absurd.

We could go on ourselves enumerating example after example of the wide variability of crude drugs, which makes their use dangerous in some instances and useless in others. But it is hardly necessary. A multiplication of examples will not convince him who does not wish to be convinced. We cannot, however, conclude this editorial without once more expressing our inmost conviction, which is strengthened each day, as *new facts* are brought to our notice, that therapeutics can make no real progress, that it must remain in a chaotic empiric condition, so long as the crude indefinite drugs and their just as widely varying galenical preparations are used in the treatment of the sick.

The therapeutic fog is thick and the sun is slow in coming up, but already can a ray here and a ray there be perceived, breaking through the solid darkness, and soon will the clear bright sun of therapeutic certainty be seen to shine in all its brightness, all its radiance, all its glory.

God speed the day!

DIGITALIS AND VERATRUM AND THEIR ACTIVE PRINCIPLES.

Two papers read in the section of Pharmacology and Therapeutics at the Boston meeting of the A. M. A. seem to deserve special comment at our hands, since they raised the question as to the relative merits of the galenic preparations of digitalis and veratrum and the active principles which we recommend in their stead. The paper on Digitalis was read by Dr. Robert A. Hatcher, of New York, that on Veratrum by Dr. H. C. Wood, Jr., of Philadelphia.

The digitalis paper was, in fact, a plea for a return to the galenic preparations, based on the writer's inability to find a reliable active principle. None is so blind as he who will not see. Dr. Wood's paper was apparently a reply to the writer's plea for veratrine, made two years ago, at the Atlantic City meeting. Dr. Wood tried to prove, what no one *attempted* to deny, that veratrine was not derived from veratrum but from asagræa. He studied the alkaloids of veratrum and arrived at the conclusion that its effects were mainly attributable to an as yet undiscovered principle in the plant.

Our own studies have been upon veratrine for a long time, and it is with some difficulty that we turn back to compare it

Humanity's only barrier is itself. And the only way it can overcome itself or anything else is through "I will" and "I do."—Dewees.

I have been extremely gratified with my experience in treatment of impotency by resection of vena dorsalis penis.—Lydston.

with veratrum. Both depress the heart and respiration, relax vascular tension and stimulate the eliminant apparatus throughout. Both irritate the stomach and bowels while given in doses as yet too small to dangerously depress any of the vital functions, and thus carry with them the double assurance of safety, in elimination and warning of approaching peril. Both have been proved effective clinically in the same wide field. The differences are to be found in the decided stimulation of the cardiac and other muscular fibers induced by veratrine, the brief increase of vascular tension it causes when given in small doses, and its less powerfully depressant action on the respiration. When an active principle shall have been extracted that affords these veratrum characteristics, it may be utilized in such cases as demand just such therapeutic applications, but since veratrum is uncertain as to its effects, and liable to change from internal decay and evaporation, we can not now make of it such nice applications.

The differences are moreover rather scholastic than real, since the primary increase of vascular tenison, caused by veratrine, is not due to any astringent action exerted on the arterioles and capillaries, but upon an increase in the force of the cardiac contractions; this increase of tension being too slight to occasion serious difficulty at any rate. We are therefore able to secure from veratrine all the desirable applications of veratrum, with the added advantages of certainty and uniformity of action and of dose, permanency of strength for unlimited periods under ordinary conditions, cleanness that permits of hypodermic injection without irritation such as a crude tincture must occasion, the quick action obtainable from a naked alkaloid that does not have to be dissolved out of a lot of encumbering debris, and the precision and power deducible from these and other advantages.

If any one wants to continue using the leaves of digitalis and the tincture of veratrum, it is his indefensible privilege to do so; and we are too earnestly advocates of individual liberty of belief and action, to wish to control such independence in any way, except by convincing argument. But we fail to see how any reasonable being can get up and say he prefers the leaves of digitalis. Of all drugs this requires the nicest regulation of the doses. When the capillary circulation has degenerated into a swamp, and the forces of the weakened heart are largely dissipated in forcing apart the flabby walls of the vessels, we may relieve the degenerated cardiac muscle of its unnecessary labor by giving enough digitalin to exactly restore normal tonicity to these vessels. But if we go a hairsbreadth beyond this point, we contract the lumen of these terminal vessels, and throw a new obstacle upon the laboring heart.

This necessitates the nicest adjustment of means, and this again demands the most accurate definition of our digitalis preparation. We can not attain such nicety of application with a preparation that may energize or depress the heart, contract or dilate the vessels, and do either of the four possible things in a different and constantly shifting degree. We can not do it when our leaves may be extra strong or worthless; when our tincture gives us a degree of effect today, and having been allowed to evaporate, will give us more effect next week; and especially when we have never accustomed ourselves to look for and recognize such nicety of effect because we did not realize that it could be attained.

Under ordinary circumstances we recognize the tendency that leads any physician

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For local anesthesia Lydston uses cocaine one per cent, essential oils, and a little glonoin, popular also with dentists.

In complete impotency ligating the dorsal penile veil is successful in 50 percent, beneficial in 25 per cent more.—Lydston, *Int. Jour. Surg.*

to trust the agents from which he has obtained good results and that he has learned to use. It would be preposterous to expect him to desert such well-tried agents on the simple say-so of someone else. We must be content that trials gradually convince him of the superiority of the definite active principles, and that the beginner who is not yet prepossessed in favor of either generally selects the best. But with digitalis it is not a matter of choice, but of life or death, and we can not hold him guiltless who allows his patients to miss the advantage of accurate therapy, or experience the perils of uncertain meddling in such emergencies.

DID YOU EARN IT?

Take that case of pneumonia. You were called immediately after the occurrence of the chill and had a splendid opportunity to study it throughout its entire course. It was a beautiful case—and the patient was so tractable, a nice young fellow, and lent himself so cheerfully to your studies. How beautifully you elicited all the classic signs—the increased vocal fremitus, the Skodaic resonance, the percussion dulness, the bronchial breathing, bronchophony and pectoriloquy. What an interesting bacterial flora you found in the sputum—the diplococcus of course. The urinary findings, especially as regards the low percentage of chlorides, were quite interesting and you spent *hours* studying the blood. The leucocyte count was rather low—said to be rather a bad prognostic sign; pity nothing can be done for such a condition.

"What's that? Oh! He died. You know we really can do very little in a case of this kind. Of course I provided a good nurse and gave him oxygen at the last. But it was an extremely interesting case from a scientific point of view.

"Yes, I made—let me see—about thirty calls; got about $60 out of it—enough for a new Abbé condenser—"

Did you earn it?

And that case of typhoid? Sad case, wasn't it? Mother in her prime—left three little children. Rather tough on her husband. If ever a case was studied with the *utmost* scientific precision that one was. Widal reaction positive on the eighth day. Diazo showed the changing colors in the urine beautifully. You incised a rose spot and found the bacilli typhosi in large numbers—also in the general circulation a little later. The splenic enlargement was most painstakingly mapped out. Your study of the sulphoconjugate acids was an exceedingly careful one and served as a basis for your paper in the *Journal*.

"Treatment—let me see. Well—you see the Widal was not positive until the eighth day, and there being some uncertainity regarding the diagnosis I thought it unwise to administer any medicaments. Dieted carefully of course. You know it is a self-limited disease. After that we gave the Brand baths. Yes, she was rather nervous about them—made too much fuss I thought. Can't say that they did much good; nevertheless all the authorities now indorse this method. Stools? They were *very* offensive and there seemed to be an unusual amount of tympanites. Possibly this explains the large amount of the sulphoconjugate acids—I shall look into it farther.

"I took in about $150 on the case—bought the wife a new diamond ring—"

Did you earn it?—God forgive the scientific do-nothing—we can't.

OPTIMISM.

While there is room in this great big world, and in the noble profession of medicine, for

Time, my time, how fast thou fliest!
Time, my time, to stay thou triest;
But no Present is for thee!—Epstein.

English judges and doctors affirm that bald men are never criminals or lunatics. Can a hairy man be intellectual?

both the optimist and the pessimist so long as we speak in the aggregate, it is a very different matter indeed when we come to consider the individual. No man ever yet made a distinguished success in any department of human activity who was a pessimist. Darwin relates an instance of this as occurring in his early days when he attempted to practise medicine. He called a physician consultant, who contradicted Darwin's previously expressed hopeful prognosis, and said that the patient would die, which he did. To Darwin's surprise, however, the family continued to employ him rather than the other man; and when he asked them the reason, they said it was because he had at least made a trial to save the patient, instead of letting him die without an effort, as the other man had suggested.

There is a whole volume in this for the thinking man. Every one knows that he or she must die sometime, and then faces the inevitable with a fair degree of resignation. What we want, every one of us, is that we shall not die prematurely. No, not until every possible effort has been made to continue our existence in this vale of tears and woe. For that reason we will cling to every hope, however slight it may be.

Doctor, be that hope. "Don't give up the ship." Fight your cases to the very last, and let them, if die they must, die fighting. No matter how hopeless may be the disease, keep a-trying. It must be extraordinarily rare to find a disease in which there is nothing to be done; in which, even should no remedy as yet have been devised, there is not something with which we may experiment.

Hope will live in the heart of the consumptive until the last breath has been drawn. And why not? What if every such case has died? Has every possibility been tried yet? Don't you know of a single method or drug that has not been thoroughly tested to the very last? No combination of drugs either? If this be so, Doctor, you certainly had better go back to school. We know of hundreds and thousands that have never been fairly tested. We know of many suggestions that have been advanced, that we could not possibly say are absolutely impossible, but have yet to be tried.

Take cancer again. Even those cases where the surgeon folds his little tool-box up like the Arab, and silently passes out of the sick-room. Don't you know, Doctor, that occasionally carcinoma spontaneously retrogrades, and that nature in some mysterious manner effects a cure? Even if it be only once in 100,000 cases, that once proves its possibility, and if nature does this unassisted, is the possibility not present that we may aid her? There are plenty of ideas about carcinoma as yet not thoroughly tried out. Not only condurangin hypodermically, and chelidonin, which persists in coming up, but Coley's fluid and other methods which are not half tried. How about the half ounce injections of nuclein, for which cures have been asserted? Have you tried it yet in a series of cases?

Were we entering the practice of medicine today and looking for an unoccupied field, we know of nothing which presents more urgent inducements to the physician than the study of hopeless, inoperable cases of carcinoma. Why, Doctor, even if with absolute frankness you go to these patients and say: "My dear friend, there is not a case on record like yours which has been cured, there is no method known which offers a reasonable hope of cure, but I believe devoutly that the All-Merciful Creator, who permitted such a disease as yours to attack a human being, created also, somewhere, the means of curing it, which lie awaiting the

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Intestinal sepsis may intensify pyrexia, etc., by itself setting up an infection of intestinal origin.—Babcock.

Is it real high science, or a greedy surgical ring, that resents any revival of drug therapeutics, on commercial grounds?

intelligent search of beings possessing the qualifications with which He has endowed us. I shall therefore do my level best to find this cure, and if we fail with you I shall try again in the next case, and keep trying until, please God, we have found it. Now, if you are willing to second me in this search, you and I will work together, not so much in the hope of saving your life as of making some progress along the road, which, in God's good time will lead to safety for others."

That patient will clasp hands with you in this search. He will second you to the utmost of his ability, and you could not drive him away with an ax.

That is what optimism means. Such optimism makes for success to the physician, not merely the success of scraping together a few dirty dollars, but the higher success of the man who, by the practice of such doctrines, renders himself an approximation to the ideal physician.

THE TRI-STATE MEETING.

The meeting of the Tri-State Medical Society at Galesburg, June 26-27, was an unusually successful one. About 250 physicians were in attendance from the three states represented in the Society, and there was a particularly good turnout from St. Louis and Chicago. The program realized everything that was expected of it. While a number of papers, which we had eagerly looked forward to hearing, were conspicuous by their absence, there remained a sufficient feast of good things to satisfy anyone but the most captious critic. It was a busy meeting, a working meeting, and in spite of the trying heat every available moment was occupied. The general character of the papers which were read was of the very best. We have never attended a meeting in which the level was higher—and we have attended a good many during the last few years.

The papers were all good, so it is hard to pick out any which deserve special mention. But we especially enjoyed Witherspoon's fine presentation of the subject of local anesthesia. His recommendation of combined local anesthesia with hyoscine-morphine brought out an extremely valuable discussion. Ayers' paper on "Misplacement of Abdominal and Pelvic Viscera" was a masterpiece and the medico-legal bearings of the subject were exhaustively discussed. Neiswanger's appeal for more study of "Electricity in Medicine" was highly appreciated by all present and will appear later in this journal. The first evening's session was given up to Dr. Wahrer's admirable address on food and medicine frauds, to the presidential address of Dr. Abbott, and to Dr. Ussery's amusing and pointed characterization of nostrum evils.

The second day there were excellent papers by Doctors Lobdell, Ellis, Newton, Kreissl, Pynchon, Johnstone, Van Housen, and others.

Especially worthy of note was Dr. Patton's splendid paper on "Cardiopathies"—a masterpiece. The final papers of the session by Ransom on "Lines of Treatment Which Should be Rescued from the Quacks" and Dr. Lanphear's "Improved Technic of Cesarean Section" were among the best of the meeting.

The general tone of the meeting was kindly and helpful. There was a general sense of uplift, of optimism, which I think we all felt. Therapeutically the society is very much alive—looking forward and not backward. It has a valuable work to do and is doing it. While it is an independent organization, its officers and members are mainly identified with the regular

I have seen a doctor wash his hands slightly, dry them on the family towel, and actually think he is clean.—Schoonover, *St. L. Clinique.*

Improper feeding with defective elimination is often the cause of phlyctenular conjunctivitis.—A. M. Ramsay.

state and national societies and its purpose is to cooperate with them in every good work while permitting the widest freedom of expression and action along every legitimate line. There is no ring, no political machinery or wire pulling in the Tri-State, but a hearty welcome and plenty of work for every honest doctor.

The Society honored itself by recognizing the distinguished services, both to the society and the profession, of its former secretary, Dr. C. F. Wahrer, who was elected president for the coming year. Dr. Bertha Van Housen was elected first vice-president; Dr. T. C. Witherspoon, second vice-president; Dr. E. G. Paxton, secretary, and Dr. Emory Lanphear, treasurer. It was decided to hold the next meeting of the Society in the fall, exact time and place not yet being settled.—Probably Moberly, Mo. in September.

Finally, brethren of the "three states," we want to urge you to get into the "Tri-State." No better time to join than now. Send your fee of $2.00 to Dr. Emory Lanphear, the treasurer.

EARTHQUAKE ECHOES.

We hear with deep regret of the loss of his entire fortune, the savings of a lifetime, by Dr. Winslow Anderson; also that the *California Medical Journal* was so completely wiped out that nothing remains except Philip Mills Jones. But that's a good deal; and we trust that our ebullient contemporary will succeed in surmounting the earthquake and the red tape of the P. O. Department and recreate his virile if somewhat sophomoric publication.

We note that many California physicians are booked to leave that state and settle elsewhere; and the appeal is made in their behalf for the minimizing of difficulties, such as State Board examinations. Very good. Even though we might have some plaint as to the difficulties thrown in the way of reputable practicians who, driven from other states by the illness of members of their families, sought to support them by practice and were unmercifully turned down by California, whose Board frankly admitted that it sought rather to protect its own physicians against competition than the people against incompetents. In times of such calamity we forget our grievances and only think of our brethren's dire needs—hoping they may take the lesson home and be merciful in turn.

How curiously the law of compensation works. The State Board of California excluded many regular practicians to lessen competition, and there were more irregulars licensed in that state than regulars. The osteopathists flocked in and occupied the ground from which we excluded our own brethren.

Although the proportion of physicians to population is very large in California, it should be remembered, that there are very many invalids among that population. The state has been long looked on as a vast health resort,and everyone realizes that there must be a large proportion of physicians in such places.

Then, again, many physicians resorting to California are themselves invalids, and can do but little work; hence more of them are requisite.

Selfishness and greed have no place in any part of the medical profession. They are incompatible with its essential, fundamental principles.

DEADLY HESITATION.

Someone says: "The woman who hesitates is lost." How about the doctor who hesitates?

Local conditions can often be explained by a study of the general systemic conditions.—A. M. Ramsay.

Earache: Under no circumstances should the patient be allowed to suffer longer than 24 hours.—Bardes, *Med. Record.*

In our student days we once witnessed an accident. Some men were moving a house when it settled down a few inches, pinning a man underneath it so as to compress his chest. The mass was raised and the man withdrawn, moaning pitifully with pain and oppression in the chest. An old doctor came along, one who had never seen a medical college but absorbed his art while working for and with a preceptor. He never hesitated, but at once inserted his lancet and started the blood. In a few moments the injured man began to breathe easier, and murmured "What a relief!" We marveled, being unable to see the indication for venesection then, or for many a day thereafter. Our own college-bred preceptor snorted when told, and said there was none and that it was a case of malpractice. But we saw that the relief was prompt and genuine.

How many emergencies occur to the practician when a prompt, vigorous intervention puts a stop to the forming pathologic movement and dissipates the gathering storm. No wonder our fathers grew so fond of the little giant they carried in their vest pockets, and to which their fingers instinctively strayed whenever they came in sight of a patient. Good reason they had. It was the best they knew.

Modern science demands more of us, especially in the way of discrimination, so that we may no longer use this or any other single remedy for very many differing conditions; yet we may with benefit imitate their promptness of appreciation and vigor of intervention. In our little vest-pocket case of potent alkaloids we have as powerful and as quickly-acting agencies, capable of similar beneficent actions. Not even the lancet can equal the speed of glonoin and atropine, strychnine, aconitine, apomorphine, digitalin, get into the engagement with almost equal promptitude. Their use begets in the doctor a habit also, of quick thinking and action, that is beyond price. Knowledge, thorough, comprehensive, automatic, leads to corresponding action, and that is what makes the true physician. Instant appreciation of a situation, and exact knowledge of the powers of means at hand, permit that quick intervention that saves imperilled lives, where the slower methods of uncertainty would forever lose.

It is good practice for the beginner who has more time than practice to study the management of emergencies. What to do in case of fainting, hemorrhage, sunstroke, convulsions, toxemic coma, sudden delirium, eclampsia, lightning stroke, drowning, illuminating gas poisoning, swallowed poisons, corrosions, as well as the results of accidents or intentional traumatisms. It is a good thing for one to determine beforehand what he would like to have in an emergency case, and get the materials together. Nothing is more pitiful than the sight of a doctor called to such a case with nothing at hand but a pencil and prescription pad, and a somewhat bewildered brain to direct them.

Some years ago a bright youngster published a paper entitled "The Kitchen Pharmacy." In this he sought to show what therapeutic resources were available in the contents of the ordinary kitchen and pantry; and it was most instructive. Mustard, spices, pepper, salt, oil, eggs, vinegar, soda, cream of tartar, sage for sweating, parsley and savory for amenorrhea, cinnamon for hemorrhage, lard, flour for burns, thyme and mint as antiseptics and carminatives, coffee, tea, etc. Even in the kitchen there's a whole pharmacy awaiting you if you know how to utilize these resources, but how much better is the definite remedy—the ready-to-dispense active principle and the other exact measures, remedial and expediential, of modern therapy. The most successful man

Dr. C. W. Lillie has resigned the chair of Practice in the P. and S. College to devote himself to the fight against tuberculosis.

Salicylates increase nitrogen and urea output, ammonia greatly, uric acid and xanthins not at all. —Morgenbesser, *N. Y. M. J.*

is he who knows what to do, is ever prepared, and does it.

SUMMER PNEUMONIA.

Pneumonia is a disease of the winter months, but its occurrence is not confined to this season of the year. The number of summer pneumonias is large and apparently increasing. For instance, in the middle of May it still led the mortality list. The week ending May 12 there were 109 deaths from pneumonia in Chicago and 115 the preceding week. Consumption claimed 55 victims the last week, Bright's disease 48 and heart disease 37. In other words there were more deaths from pneumonia than from consumption and Bright's disease combined. And this in May, considered one of the most healthful months in the year! Think of it! Is this slaughter never to cease?

Pneumonia is a curable disease. The vast majority of these deaths, in our opinion, were entirely unnecessary if physicians would only adopt rational and energetic methods of dealing with it instead of yielding to the prevailing pessimism which says that "nothing can be done." Today one of our medical friends and neighbors relates his experience with one of these "summer pneumonias." This is what he says:

"A child twelve years of age complained on Saturday of indisposition. On Sunday I was called and found that it had just had a severe chill, temperature 103½° F, with the usual signs of pneumonia affecting the left lower lobe. The area involved was small but the toxic symptoms were out of all proportion to the local findings.

"The child was at once given a little calomel, salines and aconitine, all food was stopped absolutely and water, externally and internally, was freely used. The usual directions were given concerning fresh air and keeping the child quiet. The elimination was made active and kept so for the following twenty-four hours.

"Next morning the temperature was 99° F, the child was expectorating freely the 'rusty' sputum, and evidences of beginning resolution were found."

And this is the experience of thousands of other doctors who go about the treatment of pneumonia in a business-like, determined, intelligent manner. If the bowels are cleaned out from the very start, rendered aseptic with sulphocarbolates, and the circulation equalized with aconitine and the synergistic remedies, veratrine, digitalin and strychnine, nine cases out of ten will yield just as promptly as this one did. Why won't others learn the lesson? Why won't all learn it?

One reason is that so many of our good, earnest fellows are too busy or too modest to hammer these great truths into the minds of their medical friends. Yet all the time the people are dying for the lack of this knowledge! My Brother, you have a duty, a labor to perform and a responsibility you must not shirk—you must tell the story; you must demonstrate its truth! You really must!

CURE OF AN OLD TRAUMATIC STRICTURE OF THE ESOPHAGUS BY THIOSINAMIN.

The following case is so unique, and borders so much on the marvelous, that were it not reported by the physician-in-chief of a large hospital, and had not the patient been seen by a dozen prominent surgeons and internists, skepticism would be justifiable.

The case is reported by Dr. H. Pollock, physician-in-chief of the city hospital of Stettin (*Therapie d. Gegenwart*, March, 1906). The patient was a man of thirty, a painter

Quinine lessens output of nitrogen, urea, uric acid, purin bases, increasing nitrogen slightly.—Morgenbesser, *N. Y. M. J.*

Acetanilid increases output of urea, uric acid, ammonia greatly, beginning at once with administration.—Morgenbesser, *N. Y. M. J.*

by trade. In 1897 he severely burned his pharynx and esophagus with a solution of caustic soda. A stricture developed which gradually got worse and worse, in spite of careful and persistent treatment with sounds. At first very thin bougies and liquids could pass the stricture, but the latter became absolutely impermeable both to the thinnest sounds and to liquids, and not only did the lumen of the stricture become diminished, but a larger and larger portion of the esophagus became involved in the process, so that the beginning of the stricture, which was at first situated thirty-two centimeters beyond the teeth, was at last removed only eighteen centimeters.

Increasing inanition and the complications following, even the most careful attempts at dilation, such as severe cough, neuralgic pains, pneumonia (he had four attacks), mediastinitis, empyema, pericarditis, which brought the patient several times to the edge of the grave, necessitated the performing of a gastric fistula. After this operation the patient improved a little, but another pneumonia, the constant torturing cough and neuralgic pains, emaciated the patient more and more and he became a pitiable object, and no wonder too. He began to pray to be delivered of his suffering by death and was thinking of suicide.

It is well to emphasize that for a long time not a swallow of liquid passed the patient's esophagus; for two years not the smallest sound and for eight years not a morsel of food. Any promise of a cure at that time, and by internal means and within a few weeks, would have been considered as belonging to the domain of fairy tales. But that is exactly what happened and the change occurred not in months but in days.

On the fourteenth of July, 1905, the patient received the first thiosinamin injection (in the arm), after an attempt at passing the thinnest sound, even by the aid of the esophagoscope, failed completely. On the nineteenth of July, after the third injection, the author passed with ease a thin sound through the entire esophagus, down to the stomach. The patient was able to swallow fluids. At the end of July a sound of the thickness of the little finger could pass; the patient could enjoy mushy foods. At the end of August the thickest sounds could pass and the patient could eat all solid foods without difficulty, like any other man.

To conclude briefly, the patient became "another man," gained thirty-four pounds in three months, all his troubles, particularly the nasty cough and the neuralgic pains, disappeared as if by magic. He received in all twenty-four injections and was discharged, as so far completely cured. Further comment is unnecessary.

The solution which the author used consisted of

Thiosinamin .....2.0 (30 grs.)
Glycerin .....8.0 (2 drams)
Distilled water....10. 0 (2 1-2 drams)

Of this solution eight minims was injected each time

We shall permit ourselves a little comment. This case is not only interesting as demonstrating unequivocally the value of thiosinamin in certain strictures, but is still more important as demonstrating the power and value of drugs; as demonstrating what may be accomplished in "surgical" conditions by internal treatment alone. This case reported, not from a backwoods town, but from the fountain head of all medical knowledge, Germany, is earnestly recommended to the consideration of our therapeutic nihilists. No possibility of mistakes, no "suggestion" here! Just another unequivocal evidence of what medicine, rightly used, can do.

The real status of thiosinamin in therapeutics has not yet been determined. But

Ulcerative endocarditis:—Intestinal fermentation prevents the proper digestion and assimilation of nourishment.—Babcock.

Measure the significance of the amazing fact that the average doctor's income is the pitiful sum of $750 a year.—Blesh.

its slight solubility in water has been a great drawback to its use. When wanted for hypodermic injections, hydro-alcoholic solutions had to be used which were quite painful. Merck has recently patented a process for soluble thiosinamin. Two molecules of thiosinamin are mixed with one molecule of sodium salicylate, the mixture is dissolved in alcohol (or water) and evaporated. The white crystalline residue is readily soluble in cold water.

For all practical purposes, however, it is probable that the method adopted by Dr. Pollock gives just as good results. We have no reports on the use of the Merck product.

IS VERATRINE A DEPRESSANT?

It would simplify matters greatly and remove from our paths one of the most troublesome obstacles, if the doctor would cease to look upon veratrine with superstitious dread as a dangerous depressing agent. Taken all together, we doubt if the materia medica contains a safer remedy than veratrine, nor one which, properly administered in suitable cases, exercises a more direct and powerful influence in enhancing patient's vitality.

Veratrine is safe above any ordinary remedy for two reasons: In the first place it unlocks all doors of elimination, the kidneys, liver, intestines and skin, not only thus providing for its own elimination but being one of the most powerful agencies at our command to carry other toxic elements out of the body.

Meanwhile its local irritant principles are manifested in the stomach, while as yet the doses given are safely under those that might dangerously depress the circulation. This is our principal reason for preferring veratrine to veratrum viride; with the further consideration that rubijervine, one of the principal alkaloids of green hellebore, powerfully depresses the respiration, adding to the danger which is not present in veratrine. In this respect veratrum, which is given much in diseases of the lungs, is decidedly objectionable and much inferior to veratrine.

In all diseases characterized by an excess of toxic elements in the blood in comparison with the activity of the eliminant apparatus, veratrine, by stimulating the latter and bringing about the excretion of the former, relieves the system of this cause of depression and danger. Following this there is a reaction of the vital forces which is far more marked and far better than could possibly be manifested if such a case were treated by any tonic or stimulant whatever, or any combination of such remedies. The reader may compare this with the vital reaction witnessed when the syphilitic poison is neutralized by the judicious use of mercury or iodine.

Besides this, veratrine possesses the remarkable power of relieving the sense of muscular fatigue and increasing the power and endurance of voluntary muscular fiber. Taken all in all, it would seem advisable to remove veratrine from the list of depressants and place it among the tonics, were it not that its powers in combating fevers, relaxing vascular tension and regulating excited and excessive heart action, are so valuable that this application of the remedy should never for a moment be forgotten. We cannot comprehend why it is, that so many excellent members of the medical profession should refrain from availing themselves of the inestimable values obtainable from this remedy, in deference to the superstition which led to its condemnation as dangerous, by compilers of therapeutic text-books who possessed no actual clinical acquaintance with the drug.

In heart cases constipation and flatulence impair digestion, cause neuralgias, anemia, cold extremities, etc.—Babcock.

Flatulent indigestion, probably through the absorption of toxins, is a frequent cause of deranged cardiac rhythm.—Babcock.

LEADING ARTICLES

INTERSTITIAL GINGIVITIS DUE TO AUTOINTOXICATION. ETIOLOGY.*

BY EUGENE S. TALBOT, M. S., D. D. S., M. D., LL.D.

DR. Pierce, of Philadelphia, amplified the theory of Dr. Reeves, that Pyorrhea alveolaris was due to uric acid or gout. In this article[1], Dr. Pierce reported three specimens of tooth deposit, examined chemically, in which he found numbers of fine needle crystals of calcium urates, a few crystals of free uric acid, and crystals of calcium phosphates.

Dr. Pierce based his theory of etiology upon three cases. Being familiar with the uric-acid theory of disease, I took exception. Wishing, however, to ascertain the percentage of cases in which uric-acid crystals may be found in this connection, I instituted two series of experiments in two different laboratories, neither knowing the work of the other. One series was conducted by Prof. Salisbury in the Woman's Medical School Laboratory, the other by Prof. Wesener in the Columbus Medical Laboratory.

One hundred teeth with calcic deposits were examined in each laboratory with the following results: Eight per cent responded to the microscopic and murexid tests in one report, in the other six per cent. The details in this report were published at the time[2]. Since uric-acid crystals were found in such small quantities it could not be considered a cause. I took the ground that the disease was due to trophic changes or disturbed nutrition. The uric-acid theory of disease at that time had lost ground among thoughtful physicians. At the present time, very few believe in it. The present theory is that uric acid is only an expression of systemic disturbance rather than a cause.

The article by Dr. Pierce, however, stimulated me to further research and I have devoted my entire time since then to the study of the etiology, pathology, diagnosis, therapeusis and treatment of this disease. From the standpoint of pathology more than four years were spent in study among animals and men, the result of which I published my work upon "Interstitial Gingivitis or So-called Pyorrhoea Alveolaris." This was necessary in order to obtain a basis for future work. In the past six years, I have devoted my time to the etiology, diagnosis and treatment.

For many years, I had observed interstitial gingivitis among neurotics and degenerates as early as ten and twelve years of age. The absorption of the alveolar process and gums was also rapid in these people from eighteen years on. Soreness of the teeth and inflammation of the gums and alveolar process were observed in children suffering from eruptive fevers and in women in pregnancy. These symptoms were also observed in the metals and drug poisons and scurvy. The older the individual the more severe the

*Read before the Southern Wisconsin Dental Society, May 30, 1906.

1. International Dental Journal, Vol. XV, pages 217, 505.

2. International Dental Journal, April, 1896.

disease. The same law holds good with animals.

In changes of climate from a moderate to a high or low temperature, causing the eliminating organs to become torpid and not readily to adjust themselves to foods and environment, the disease in most cases was marked. These observations led me to inquire into the general condition of the system.

Bouchard has said that "the organism, in its normal, as in its pathological state, is a receptacle and a laboratory of poisons. Among these, some are formed by the organism itself, others by microbes,—minute forms of vegetables—which either are the guests, the normal inhabitants, of the intestinal tube, or are parasites at second hand and disease producing. Man is, in this way, constantly living under the chance of being poisoned; he is always working toward his own destruction; he makes continual attempts at suicide by intoxication. And yet this intoxication is only partially realized, for the organism possesses numerous resources which enable him to escape the intoxication which is always threatening. He throws off these toxic substances into a special reservoir, from which they afterward pass out; and, besides, the blood, constantly substracts from the organs the poisons as soon as they are formed in them." When, however, these poisons are not entirely eliminated, the blood and system become charged with effete matter and autointoxication or self-poisoning results.

Autointoxication may be produced from poison generated within the body or introduced from without. Frequently patients have undergone the most simple and insignificant surgical operations, as for hare-lip, to the most serious and prolonged, as removal of female genital organs, operations for gallstones or removal of the appendix, and have recovered from the shock. At the end of a few days of apparent recovery, they suddenly collapse and die. A post-mortem examination conducted with the greatest care, reveals nothing as to the cause of sudden death. Sudden deaths have occurred to numbers of people who have partaken of certain foods at church and other gatherings. Individuals have died in one, two, three, or four days after eating sea foods, stale meats, etc. Epidemics have occurred from poisoned foods and drinking water. Selmi, the Italian toxicologist, was the first to discover that substances were present in the system, which, when combined with acids, formed chemical salts. Those corresponding to inorganic and vegetable bases he called ptomains; formed by the action of bacteria upon organic matter. The chemical salts resemble vegetable alkaloids. The term leucomains or animal alkaloids is used to designate those basic substances caused by tissue metabolism in the body. Not all ptomains are poisonous. Some are inert. Brieger restricts the term ptomains to non-poisonous basic products, while those that are poisonous he calls "toxins."

In some diseases, poisons or toxins are poorly eliminated, in others easily, depending entirely upon the nature and location of the disease.

If the disease involves the entire system and all the eliminating organs, the skin, kidneys, bowels, and lungs are or can be made to perform their natural functions, many of the poisons are soon removed; on the other hand, if any of these organs are involved, the processes of elimination are slower, as the eliminating organs, not involved, must do all the work. At best this is imperfectly performed. The greater part of these poisons are eliminated by the stools. Owing to the slow movements of the intestinal contents, much of the poisons are absorbed by

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The man who introduced quinine in Mississippi, refused a license, threatened to challenge the Board. Would it work now?

The greatest advantage from professional partnerships is in the fact that each no longer works only for himself.—E. H. Martin.

the mucous membrane. In fatty metabolism or tissue changes, toxins are produced which are absorbed and pass into the lymph and blood vessels.

All poisons producing intoxication, whether due to disease, tissue change, fermentation or infection, are of interest in their relation to interstitial gingivitis. Many of these auto-infections are of short duration and their intensity is not lasting. On the other hand, the toxins of mercury, lead, brass, drugs, syphilis, tuberculosis, scurvy, etc., are familiar to all. They are of vital importance to the patient and physician since they act quickly but are not of general interest at this time. The autointoxications of slow process and in which the system is becoming slowly poisoned are the ones of vital importance and are due to intestinal fermentation and tissue changes. These toxins are taken directly into the blood vessels and carried throughout the system. This has been repeatedly proven by Bouchard.* Another proof of this statement is the fact that in the product of secretion of the eliminating organs, those poisons which are produced in the intestinal canal are found.

That man was born free from microbes was first described by Metchnikoff. Soon after birth the skin and mucous membrane become infected, either from the air or water used in bathing or both. On an examination of the intestinal contents an hour after birth, during warm weather, bacteria were found. Usually bacteria are not observed until from twelve to twenty hours after birth. Micrococci and bacilli flourish independent of food, since they are found in the alimentary canal before nourishment has been taken. These microbes change in character when mother's milk or other foods are given the child. The bacillus bifidus appears with mother's milk; the colon bacillus, streptococci, staphylococci, lactic acid bacilli, etc., with cow's milk. Later, from changes in diet, whether purely vegetable or animal, microbic flora grow rapidly in the intestinal tract. Vignas and Suckdorf have shown that an adult man passes from 30,000,000,000 to 50,000,000,000 of bacteria daily from his feces. Many, perhaps most of these bacteria, are harmless in healthy individuals. They become exceedingly virulent in accidents or injuries such as gunshot, knife, or other wounds, strangulated hernia and catarrhal conditions of the mucous membrane. Man therefore is in constant danger of being infected. The injury resulting from these microorganisms, from the standpoint of this paper is not from the bacteria themselves but from their toxins, the products of which are absorbed.

Autointoxication, without other pathologic states, is due to the absorption of toxic material in the gastrointestinal tract. This is assisted by hepatic insufficiency, and a want of muscular tonicity to expel the accumulation.

Before considering farther the putrefactive changes of the intestinal canal, I wish to speak here of a subject to which I find little of note by previous writers, namely, changes in the digestive tract due to evolution. Evolution is based upon the law of economy of growth laid down by Aristotle, or use and disuse of structures. It is applicable here as in other parts of the body. Man, as a whole, has undergone rapid changes, and is still undergoing greater and greater specialization. In no structure of the human body are these changes so great, owing to disuse, as in the digestive tract.

When an organ is exercised, like the arm of the blacksmith, the hands of the oarsman, the legs of the mail carrier, they become enlarged and strong. On the other hand when any organ is not used, like the little muscles of the ear, the small ribs, the little toes, the

*Autointoxication in Disease.

Let us always remember we are members of the last order of knighthood, and that noblesse oblige.—E. H. Martin.

The true physician is he who takes counsel only with himself; and this he can do, grace to dosimetry —Burggraeve.

blood does not flow to the part in proportion and arrest of development results. I have repeatedly shown, many times, the arrest of the face, jaws, and teeth in the evolution of man due to disuse.

Civilization, its customs in preparing food and etiquette in eating, has caused rapid degeneration of the jaws and teeth resulting in irregularities and decay. The mastication of food is a lost art with many people, the salivary glands are not excited, arrest takes place and saliva, containing ptyalin, is scanty. Foods cooked and swallowed without mastication are taken into the stomach without the preparation of first digestion. The gastrointestinal juices are required to perform all the work. Changes in the liver, either as to size, quantity of bile secreted, or disease, cause hepatic insufficiency. The same is also true of the pancreas, and gastrointestinal juices. The size of the stomach, the length and deformity of the intestines, should also be considered, and last, but not least, the condition of the nervous system and the power of the muscular coats of the intestines to expel the contents of the body.

The evolution of the rectum and anus from the placental and oviparous mammals is interesting, but is too broad a subject to be considered in this paper. This evolution however, in its relation to malformations of muscular tonicity must not be lost sight of in the study of gastrointestinal irregularities.

The sedentary life, due to modes of living, has brought about many of these changes. The digestive apparatus has not had time to readjust itself to the new environment. Microorganisms and pus germs which have accumulated in the mouth are taken into the stomach and intestines with every swallow. These must produce injurious results. While the functions of digestion is to convert albuminoid substances into peptones, alkaloidal poisons are produced together with toxic substances due to intestinal fermentation. These, together with other poisons due to metabolic changes, pass into the lymphatic and blood vessels.

Direct demonstration of this fact has been shown by many investigators. Planer, after ligating the colon, found H_2S in the blood of the portal vein. Carter has found indigo in animals, the subjects of intestinal derangements. Bouchard, as well as Planer, has observed alkaloids not only in the tissues but in the blood. Poisons form not only in the intestines, but also those existing in the tissues are also observed in the urine.

That an increase in intestinal fermentation will cause a large quantity of toxic material to pass through the blood into the urine has been demonstrated many times. Stadeler, in 1848, found phenol in the urine. Bauman, in 1877, found phenol in fecal matter. In 1826 Tiedeman and Gmelin discovered a red colored substance in the duodenum, which proved to be indol. Bracennot later found in the urine indican, derived from indol. In 1872, Jaffe injected indol under the skin, and afterwards found indican in the urine. Later experiments by Senator failed to find indol in the meconium, or indican in the urine of newly-born infants. It is an established fact today, that the variations of indican in the urine are governed by the quantity of indol in the feces. In other words, the amount of indican in the urine depends upon the activity of intestinal fermentation. In cholera, typhoid fever, intestinal obstruction, Hassal, Gubler, Robin, Carter, Jaffe, found large quantities of indican in the urine. Senator showed indican in the urine in constipation.

Nancki gave a dog two grains of indol by the mouth; in twenty-four hours there appeared diarrhea. Twelve milligrams of a one per cent solution administered sub-

The 18th century made seduction unfashionable; the 19th frowned on drink; the 20th may make public opinion alike for man and woman.—Fassett.

A sound mind, clean body, and pure heart, form the very cornerstone of health and success in life.—Fassett, *Med. Herald.*

cutaneously to frogs caused death; 1.5 to 2 grams of indol administered subcutaneously to a rabbit in twenty-four hours proved fatal. By similar experiments, Salkowsky found phenol and cresol in the urine; especially was this the case in diarrhea and in intestinal obstruction. There is no doubt that in future investigations, other poisons will be found in the stools and urine that produce marked poisonous effect upon the system. Putrid matter formed in the intestines found in the urine must of necessity circulate in the blood throughout the system. There is a natural fermentation going on all the time in the intestines. In young and middle-aged people, when the tonicity of the excretory organs is normal and they perform their offices in a healthy manner, the kidneys, bowels, skin, and lungs, remove the poisonsous products from the body. When, however, putrid matter is formed in excess or the excretory organs have lost their tonicity has the system other means of preventing the accumulation of poisons in the blood? Certainly, the liver is intended to perform that office. This has been proven by Schiff. The experiments by G. H. Roger with alcoholic extract of rotten meat, showing that when injected into the portal vein it is less toxic by half than when it is introduced into the general circulation.

Bouchard has shown that blood drawn from the portal vein of a dog kills a rabbit in a dose from thirteen to sixteen cubic centimeters per kilogram, blood removed from the liver requires 23 Cc. He has also shown that the injection of the extract of 2.5 Gm. of decomposing meat is sufficient to kill a man.

Many other experiments have been made by scientists, showing similar results. In a summary of the research work, it is safe to say the liver is intended to give protection to the system when the excretory organs are unable to perform their function.

When all conditions work in harmony—that is, when animal and man, after years of normal environment, have adjusted themselves, disease is less liable to result. When a change of environment, such as food, climate and soil takes place, the animal or man becomes more susceptible to disease. Thus, fifty-five monkeys died of tuberculosis in Lincoln Park Zoo, Chicago, in one year, due to change in food, temperature, and confinement. House dogs are more susceptible to disease than street dogs. The Indian of North America has and is dying rapidly from change in environment and food. This is true of other primitive races throughout the world. Scandinavians in American cities are very susceptible to disease. The same is true of the negro. Many people are still in the primitive stages as regards their digestive apparatus. They have inherited an atavistic tendency in their large, well-formed jaws, muscles and teeth. They masticate food and enjoy it like the carnivora, tearing and chewing meat from a bone. The digestive apparatus is perfect, the bowels, kidneys, skin, and lungs do their work normally, they are in perfect health.

Many have progressed along the line of evolution, where the digestive apparatus is weak. These people live a sedentary life one or two generations in advance of the tiller of the soil. They are in the transitory stage, not yet adjusted to the new environment. A third class, born of neurotic parents, have inherited deformed internal organs, the secretions and actions of which are not in harmony with each other. They do not chew their food and digestion is impaired. Their nervous systems may be impaired from the first, or they may become involved as a result of faulty digestion and assimilation.

So many varied substances are needed in the perfect diet that an intelligent omnivorousness is our only safeguard.—Woods Hutchinson.

Diet cures for obesity, diabetes or gout are apt to upset the balance of nutrition and impair vitality. —Hutchinson.

Studying the three classes singly, it is found in the first: These people are healthy, can eat and drink everything and at all times day and night. They can eat eight or ten meals a day, "like the King of Portugal," and enjoy them. They can drink large quantities of alcohol or beer each day without difficulty. They are rarely ill. When the senile stage begins, while there are no marked symptoms the excretory organs fail to perform their work properly. Interstitial gingivitis sets in, the teeth loosen, arteriosclerosis, kidney breakdown, uremic poisoning, and at from 55 to 65, death takes place from Bright's disease, diabetes, heart failure, or apoplexy, the result of excesses.

The second class easily produce acute gastrointestinal fermentation, autointoxication, and are subject to sick headaches, acid stomachs, gases in both stomach and bowels, constipation. They suffer with headache, migraine, vertigo, and often with nervous symptoms. In these cases, special foods will upset the entire system. Fruits raw, as well as cooked, carry microbes to the small intestines, and fermentation and putrefaction result. Coffee, chocolate, cocoa, beer, and the inhalation of tobacco smoke will stop secretion of bile, produce cold extremities, sick headache in a few hours; not infrequently skin eruption is produced.

The third class is not only subject to all the symptoms of the first and second, but frequently surgical operations are necessary to establish healthy relations between the digestive organs.

Deformities of the jaws and teeth are not uncommon. Macaulay portrays a vivid picture of such a state in Charles the Fifth of Spain. Among other physical deformities he says: "At length a complication of maladies completed the ruin of all his faculties. His stomach failed, nor was this strange, for in him the malformation of the jaw, characteristic of his family, was so serious that he could not masticate his food and he was in the habit of swallowing ollas and sweetmeats in the state in which they were set before him. While suffering from indigestion he was attacked by ague. Every third day his convulsive tremblings, his dejection, his fits of wandering, seemed to indicate the approach of dissolution."

Neurotics and degenerates are very susceptible to autointoxication on account of an unstable nervous system. They become easily constipated or toxic material accumulates in the intestines by which the system becomes slowly poisoned. Convulsions occur in both children and adults. Most, if not all, insane patients are constipated. While it would not be safe to say that the insanity was due to constipation, yet all are greatly benefited and slight forms are cured by keeping the bowels free from microbic infection.

Some of the best specialists claim the skin eliminates very little of the blood's poison. Under ordinary circumstances the skin excretes water, salts in small quantities, carbonic acid, and in some, volatile fatty acids. As age advances and the eliminating organs lose their tonicity, the bowels and kidneys fail to eliminate all the decomposed material. When these organs become diseased, the skin and lungs assist in carrying off the poisons or their products. The skin, especially, is important in keeping the system in a healthy condition, free from poisons. The changes from heat to cold and *vice versa* has been beautifully shown in the Spanish-American and Boer Wars, the building of railroads in high altitudes, especially in Switzerland. Soldiers and men have become poisoned from a want of quick adjustment of the eliminating organs to heat and cold together with change in

In your practice you have discarded some of the fallacies in the dietetic treatment of disease.—N. W. *Lancet.*

The most convincing proof the Scotch have given of greatness is that they have been able to live on oatmeal.—Hutchinson.

foods, resulting in what many physicians have called scurvy, but what was, in reality, simple interstitial gingivitis.

What the laity understand as "spring fever" is but the readjusting of the eliminating organs from winter to spring. People in the senile stages feel better in warm climates than in cold, hence the custom of moving to warm climates in winter.

During pregnancy, the system of the mother is filled with poisons from maternal, as well as fetal circulation. The excretory organs are overtaxed by the poisons resulting from intestinal fermentation of the mother, and the cell changes in both organisms, hence the neuralgias, rheumatic pains, cramps, interstitial gingivitis, and convulsions, so frequently observed.

One accustomed to the odor of the skin and lungs and an examination of the mouth from interstitial gingivitis can readily detect intestinal fermentation and kidney irregularity. Many times I have detected a tendency to kidney lesion itself in this manner which was confirmed by urinanalysis.

Autointoxication in disease is familiar to all. The blood charged with effete matter or poison, due to autointoxication is abundantly proven. Oxygenation of the blood cannot properly be accomplished by nose breathing. More air is necessary, hence the opening of the mouth is unconscious. A larger volume of air by nose and mouth is therefore taken into the lungs. Most people at the senile stage do this, most noticeably however, at night.

The poisonous products of the intestinal canal not expelled from the bowels are absorbed and carried by the portal system to the liver. If sufficient bile is secreted to destroy the toxic material, it will be carried back and emptied into the bowel. If, owing to some mechanical obstruction, as catarrhal swelling, gallstones, or thickening of bile, the normal function of the liver should be interfered with, hepatic insufficiency results. Any derangement of the bile or liver cells, which interferes with the proper function of rendering harmful substances innocuous, would cause abnormal and poisonous products to be carried in the blood. The liver, therefore, is responsible for whatever toxic material remains after it leaves the intestines.

The great outlet for poisons which the liver fails to eliminate are the emunctories, chief of which is the kidneys. If there be too much work in this direction, the eliminating function is soon lost. The toxic material accumulates and results in renal inflammation and albuminuria. When this has taken place, the blood becomes charged with poisons, the heart and arteries undergo degenerative changes with cardiac hypertrophy, arteriosclerosis, the many consequent cardio-vascular diseases, insufficient blood supply to various vital organs, nervous disorders, Bright's disease, diabetes, rheumatism, gout, uric-acid diathesis, skin eruptions and asthma results. Before these diseases have become of sufficient importance to be observed by the physician, interstitial gingivitis has obtained full sway. In all diseases mentioned above interstitial gingivitis is most pronounced.

Chicago, Illinois.

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We congratulate ourselves on being able to present to our readers this most important study of a poorly-understood disease, one which is of equal importance to physician and dentist. We hope to present a number of succeeding articles by Dr. Talbot, in which the subject will be still further developed, leading up to and ending with his original investigations concerning the most successful method of treatment. We believe that these studies will prove truly

Any nation trained to survive a diet of oatmeal and the shorter catechism, could survive anything, flourish anywhere.—Hutchinson.

Could the great San Francisco earthquake be explained by the presence of Woods Hutchinson in that city?

epoch-making. Dr. Talbot is fitted for this work not only by his able work in dentistry, but also by his well-known studies of developmental conditions, which play such an important a part in the life history of every man.—Ed.

THE ALKALOIDS OF GOLDEN SEAL.

BY J. M. FRENCH, M. D.

HYDRASTIS Canadensis, or Golden Seal, has been in use as a medicine for nearly a century, but until comparatively recent years its use has been confined almost entirely to the eclectics and other herbalists, and it is to them that we are chiefly indebted for a knowledge of its properties, and for its development as a part of our materia medica. Although indigenous to America, its physiological and therapeutic effects have been much more thoroughly investigated abroad than in this country, outside the classes named.

Hydrastis is primarily a remedy for relaxed and diseased conditions of mucous membranes. Its action is that of a tonic, promoting appetite and digestion, increasing the flow of bile and the normal secretions of the gastrointestinal tract, while at the same time it lessens over-secretion, corrects unhealthy discharges, and restores the normal tone and function to the relaxed and diseased tissues. Its internal use is indicated in dyspepsias which are characterized by relaxation and over-secretion, with deficient absorption, and a tongue heavily coated at the base. It also exerts a beneficial influence in cases of chronic nasal catarrh. Locally, it is used in the form of an infusion or aqueous extract as an injection in leucorrhea and gonorrhea, as a wash in various forms of sore mouth, and as a douche in nasal and bronchial catarrhs. In its general applications and effects, it resembles nux vomica to some extent, while excelling it in some important respects.

The most important galenical preparations are the official fluid extract, tincture, and glycerite of the U. S. Pharmacopeia, and the eclectic preparations known as "specific medicine hydrastis" and "fluid hydrastis." The latter is said to be an aqueous solution of the medicinal principles in normal proportions, freed from inert materials. The alkaloids existing in the plant are berberine, hydrastine, and canadine, which, together with the derived alkaloids hydrastinine, we will consider.

BERBERINE.

1. Berberine, the yellow alkaloid, is by far the most abundant, and exists in the root in proportions varying from one to three per cent., according to the conditions under which the plant is grown and the season in which it is gathered. This alkaloid is also found in many other plants, as Berberis aquifolium, from which it derives its name, podophyllum peltatum, Coptis trifolia, Menispermum, Calumba, Xanthoxylum, and various species of numerous orders. It is said to be the most widely distributed of any alkaloid in the plant world.

The chemical formula of berberine is $C_{20}H_{17}NO_4$. It occurs in yellow needles, is only slightly soluble in cold water, more so in alcohol, very soluble in hot water, and insoluble in ether. Its solutions are of a yellow color and an extremely bitter taste. The salts are of a golden yellow color, and are more soluble than the alkaloid. The acetate and the phosphate are the most soluble, while the hydrochloride is the most

The patent and proprietary medicine conspiracy has reached the climax of human endurance.—C. H. Vaught.

J. A. M. A. says aconite is a comparatively recent addition to materia medica—by Storck in 1762! Recent? Gee!

commonly employed in medicine. The actions of the different salts are essentially similar.

Physiological Action.—In small doses, berberine is an astringent bitter, acting as a tonic and stomachic. In large doses its most important action is upon the central nervous system, paralyzing first the automatic centers, and afterwards the spinal cord. In rabbits, a grain and a half hypodermically causes death with paralysis of the hind legs, convulsions, diarrhea, falling temperature, and a weakening heart and respiration. Death occurs apparently from asphyxia, caused by paralysis of the respiratory center. In smaller doses it causes albuminuria, with swollen and turgid renal epithelium. A dose of 12 grains in rabbits, given by the mouth, is not fatal, but produces diarrhea, vomiting, tremor, rapid pulse and respiration, with extreme weakness. Given continuously in large doses, it lessens appetite and reduces body-weight. Whether given internally or administered hypodermically, intestinal peristalsis is one of the principal symptoms produced. Both the spleen and the uterus are strongly contracted by its use. Its effects upon leucocytes and bacteria, when given in strong solutions, are analogous to those of quinine. Small doses do not influence the blood-pressure, but larger ones lower it decidedly. Brunton says that doses of fifteen grains in man cause only slight colicky pains and diarrhea. Berg took 55 grains without any inconvenience, so that it cannot be considered actively poisonous.

Berberine is in part excreted by the kidneys unchanged, and in part is found in the bowels, even when it is given hypodermically; while the remainder is broken up in the system.

Therapeutic Indications and Uses.—Berberine is indicated as a simple bitter wherever there is a lack of tonicity of the intestines, with constipation or passive relaxation; in enlargement of the spleen, where it is well used in conjunction with quinine; in menorrhagia, metrorrhagia, and subinvolution of the uterus, where it acts by causing contraction of the uterine tissues, but is inferior to hydrastine, which in turn is less efficient than hydrastinine. It is also used as an injection in leucorrhea, gonorrhea, etc. Lascarato states that the contraction of the spleen caused by berberine is so powerful that overdoses caused rupture of that organ, with fatal hemorrhage. When the splenic tissues are degenerated there is no action. Ergotin and digitalin, on the other hand, prevent hemorrhages by causing contraction of the bloodvessels. The specific indication for berberine is found in relaxation of muscular and connective tissue, and it has no effect upon the bloodvessels.

Administration and Dosage.—As a tonic, berberine is best given in minimum doses and long continued. Merck gives the dose for this purpose as from one-half grain to one and one-half grains three times a day, in pills or capsules. The standard alkaloidal granules are gr. 1-67 and gr. 1-6. In malaria as much as fifteen grains may be required daily, in divided doses; but even here gr. 1-6 every waking hour is usually sufficient. It is much more effective to keep the blood saturated with the remedy given in small doses than to give a single large dose. Berberine is preeminently a remedy for prolonged administration in chronic cases. It is not a remedy for any particular disease, but is one of our most effective remedies for certain conditions common to many different diseases.

HYDRASTINE.

2. Hydrastine, the white alkaloid of golden seal, the colorless hydrastis of the eclectics, is found in the root in the propor-

See in *J. A. M. A.*, page 1164, how little a man can know about circulatory depressants and yet presume to teach.

Drs. E. A. Spitzka and Geo. McClellan having been elected Professors of Anatomy at Jeff., their colleagues gave them a square meal.

tion of 1-4 to 1 1-2 per cent, according to the quality of the plant and the mode of cultivaiton, etc. It is of a white color, faintly tinged with yellow, crystalline, only slightly bitter but leaving an acrid taste in the mouth and throat. According to Squibb, it is soluble in 135 parts alcohol, 124 ether, 2 chloroform, and almost insoluble in water. Its chemical formula is $C_{21}H_{21}NO_6$. The hydrochlorate of hydrastine, or according to the revised Pharmacopeia, the hydrochloride, which is the most commonly employed in medicine, is freely soluble in water and alcohol.

Physiological Action.—Hydrastine stimulates first the centers of the medulla oblongata, slowing the pulse, increasing the arterial tension, and quickening the respiration. Larger doses stimulate further the spinal cord, and finally paralyze both the medulla and the cord. In addition to this central action, hydrastine weakens and finally paralyzes the heart muscle in warm-blooded animals, and in the frog even the striated muscle. Very large doses induce clonic and then tonic convulsions and then tetanus, during which respiration ceases. (Cushny.)

Hydrastine stimulates the medullary centers, and the intestinal, cardiac and uterine muscles, raises arterial tension, slows and strengthens the heart, quickens the respiration, promotes intestinal peristalsis and uterine contraction. In toxic doses it stimulates the spinal cord, causing tetanic convulsions, depresses the motor nerves and the muscles, and finally paralyzes the medullary and spinal centers and the heart, death occurring by respiratory paralysis. It is a poison to the muscular system, both striated and non-striated, throughout the body. (Potter.)

From these two statements we see that the action of this alkaloid is first tonic, then tetanizing, and finally paralyzing. It is of special value in capillary hemorrhages of all kinds, and is used with success in epistaxis, hemoptysis, tubercular hemorrhages, aneurism, and uterine hemorrhages. It is slower in its action than ergot, and less powerful than hydrastinine. It is excreted by the kidneys, and exerts some diuretic action.

Comparing the action of hydrastine with that of berberine, we find that the toxic action of the former is much greater. Hydrastine is comparable to strychnine in its toxic action upon the central nervous system, and to the alkaloids of sanguinaria in its weakening and finally destroying the muscles, especially the muscles of the heart. Berberine in moderately large doses paralyzes the inhibitory nerves, quickens the heart-beat, and lessens the blood-pressure. Hydrastine stimulates the inhibitory nerves, slows the pulse, and raises the arterial pressure.

Therapeutic Indications and Uses.—Hydrastine muriate, 3 grains to the ounce of glycerin, is useful in some cases of granular conjunctivitis. It is also used in nasal catarrh, uterine catarrh, and leucorrhea, both internally and locally. An aqueous solution is useful in many cases of gonorrhea and vaginitis. Unhealthy ulcers, sloughing sores, and chancroids, are improved by the local application of the fluid extract. "Lloyd's hydrastis" is an excellent preparation of the white alkaloid, which is recommended as an injection in genito-urinary diseases, throat diseases, diseases of the eye and ear, and internally in atonic dyspepsia, chronic gastritis and gastric catarrh, the vomiting of pregnancy, malarial diseases, and as a tonic in convalescence. It is also used extensively as an injection in gonorrhea. It is a tonic to the nervous system. It is, when combined with strychnine

H. C. Wood, Jr., tells in the Association *Journal* of several cases of fatal poisoning with bromidia.

After taking 26 bottles of a catarrh cure, warranted to cure, the patient demanded the $100, but was told he had not taken enough!

and capsicum, the best substitute for alcohol, and is also a true physiological antagonist to alcohol, similar to strychnine. It resembles strychnine in its general effects, but is more slowly developed and at the same time more lasting in its effects. It gives tone to all unstriped muscular fiber; is a dryer of mucous weeping; checks hemorrhagic oozing.

Compared with berberine, from a therapeutic point of view, the distinctive action of berberine is upon the muscular and connective tissue, while that of hydrastine is upon the capillary arterioles, through the vasomotor nerves.

Administration and Dosage.—The dose of hydrastine hydrochloride is given by Merck as from 1-2 to 1 grain, every two hours if necessary. Maximum dose, single, 1 1-2 grain; daily, 5 grains. Squibb gives the average dose as 1-6 grain in pill. The standard alkaloidal granule is gr. 1-67, dose one to six every two to four hours, as a hepatic stimulant and general alterative to mucous membranes.

HYDRASTININE.

3. Hydrastinine, an artificial alkaloid derived from hydrastine by a process of oxidation. Chemical formula, $C_{11}H_{11}NO_4$. The hydrochloride occurs in light yellowish needles or yellowish white powder, odorless and very bitter. It is very soluble in water and alcohol, and in 268 parts choloroform, and 1300 ether.

Physiological Action.—The hydrochloride of hydrastinine is a powerful depressant to the whole motor tract, from the cerebral cortex to the muscular tissue. It has a stimulant action on the circulation, causes the heart to act more slowly and powerfully, and contracts the bloodvessels, producing a marked and powerful rise of arterial tension throughout the entire body. It is believed to have a powerful antispasmodic action, and to decrease the general excitability of the cerebral cortex. (Potter).

Cushny doubts the assertion sometimes made that hydrastinine causes rhythmic contractions of the uterus and so produces abortion. He considers that it acts solely on the uterine vessels, as it does on those of the rest of the body, and may cause the death of the fetus by choking off its blood supply.

As compared with hydrastine, hydrastinine does not cause spinal irritation or tetanus; has no injurious local effect; is not a cardiac poison, but an excitant instead, and death can be prevented by artificial respiration; the blood pressure is much greater, has no interruption or relaxation, and is the result of a steady contraction of the bloodvessels and not to centric irritation. It does not destroy the red blood cells, in any doses, large or small.

Therapeutic Indications and Uses.—The primary use of hydrastinine is as a uterine hemostatic and vasoconstrictor. It is useful in any affection where it is desirable to limit the flow of blood to the abdominal and especially to the pelvic organs. Its specific use, therefore, is in restraining uterine hemorrhage. Its effects are more pronounced when the walls of the vessels are sound, less so when they are diseased. It is indicated in menorrhagia, metrorrhagia, hemorrhages at the menopause, those due to fibroid tumors of the uterus, etc. It differs in its action from ergot, in that it never causes painful contractions of the uterus, as it acts only on the uterine vessels, and not on the muscular fibres. It is slower in its action than ergot, and more lasting in its effects.

It has sometimes been given with good effect in hemoptysis, and in such cases it should be continued for a week or more after the hemorrhage has ceased. It lessens the irritability of the motor areas in the

For internal hemorrhages Dixon urges hypos of calcium chloride gr. ij, neutral and deeply injected. —*Lancet.*

La Dosimetrie dont les prescriptions simples lui permettent de faire la pierre de touche therapeutique.—Burggraeve.

brain, and has therefore been suggested as a remedy in epilepsy. It is probable on theoretic grounds, however, that cicutine would prove a more suitable drug for this purpose.

Administration and Dosage.—The dose of hydrastinine in conditions of serious hemorrhages varies from half a grain to a grain and a half a day, in divided doses. Merck gives the maximum single dose as one-half grain. The alkaloidal method is to give 1-12 or 1-6 grain every four hours until effect. It is slow in producing its effects, but they are more permanent than those of most other drugs of a similar nature. The price of the drug is such as to put it out of the market for ordinary uses, being given by Squibb as eighty cents for a five-grain vial. Like that of the other preparations of hydrastis, the price seems to be constantly on the increase, probably owing to the increased demand.

CANADINE.

4. Canadine, the third of the natural alkaloids of golden seal is known as canadine, or sometimes as xanthopuccine. Its chemical formula is $C_{21}H_{21}NO_4$. It occurs in white crystalline needles, and is found in the plant only in very minute proportions. Probably owing to this fact, it has not been made use of in medicine to any considerable extent, nor has its action been studied with the same care as has that of the other alkaloids.

When taken in small quantities, canadine produces drowsiness, followed by complete recovery without other symptoms. In larger doses it causes a short stage of excitement, followed by depression and paralysis of the central nervous system, with weakness and arhythmia of the heart. Its hypodermic use is followed by violent intestinal peristalsis and diarrhea.

CONCLUSIONS.

Hydrastis is a valuable drug, and its use is rapidly increasing. As a stomachic and general tonic, the crude drug and its galenic preparations may be employed. To produce contraction of muscular and connective tissue, berberine is the preferred agent. To cause contraction of the arterioles, hydrastine and hydrastinine are effective, and of these hydrastinine is especially superior as a uterine hemostatic.

Milford, Massachuetts.

INTESTINAL ANTISEPSIS IN FEVERS.*

BY WILLIAM F. WAUGH, A. M., M. D.
Emeritus Professor of Practice, Illinois Medical College.

MY first proposition will be one which, unfortunately, no one will question —that in all infectious maladies the course and severity of the disease is unfavorably influenced by bad hygienic surroundings of the patient. I say "unfortunately," for we are so constituted that the knowledge that comes to us without effort is not assimilated by us so as to become an integral part of our lives. What we acquire with painful labor is ours, is part and parcel of ourselves. The truths of hygiene are so easily admitted that they are forgotten in the practice.

The influence of filth in house, cellar, yard, gutter or any part of the patient's surroundings, is manifested by severity in the symptoms; if the conditions are very

*Read at the meeting of the Golden Belt Medical Society, Salina, Kansas.

Hippocrate et la plupart des philosophes de son temps sont devenus centenaires: pourquoi ne ferions-nous pas comme eux?—Burggraeve.

Essenson records two cases of eclampsia in which decided glycosuria was present; strengthening the theory of autotoxemia.—*N. Y. M. J.*

had by malignancy. The most dangerous ingredient of this environing dirt is by all odds human excreta. But why is it that the infinitesimal emanations thus taken into the patient's system exert so disastrous an influence, while he carries within his alimentary canal large quantities—pounds sometimes—of this very material with impunity. We question the impunity. Even in health this matter can not but exert a deleterious effect upon his health and well being. That it does not do more harm is perhaps due to the effect exerted upon it by the digestive secretions, especially the acid gastric juice. Still more to the facts that the osmotic current is in health an exosmosis, from the blood toward the alimentary canal, and the liver is constantly intercepting the toxins absorbed and turning them back for excretion. Countless microorganisms of known and unknown natures swarm in the bowel, the fecal mass being made up in large proportion of them, of which billions are ejected with every stool. During health these are kept in tolerable order and are, generally speaking, of benignant types.

When the temperature of the body is raised by fever, of any type, infective or otherwise, the conditions change. The digestive secretions are to a large extent or even wholly suspended; bacterial growth and decomposition processes are stimulated, and under the influences of increased heat, abundance of decomposable nitrogenous material and the absence of restraint some of the microorganisms develop malignancy. The formation of toxins is vastly increased. But the most important element is one never mentioned in the textbooks, the reversal of osmosis. The increased exhalation of water from the skin, and inhibition of fluids induced by the fever thirst, causes an endosmosis from the bowels into the blood, carrying with it the toxins generated in this alimentary canal, whose contents are within and yet not within the body, since they form no part of the body and are not reached or controlled by the circulation.

Hence we advance the maxim, that in every febrile disease, specific or otherwise, there is necessarily intestinal decomposition, toxin formation and absorption, and toxemia; and that to this cause is due directly a certain proportion of the symptom total of the attack. My estimate is that about one-third of the fever and other symptoms may be credited to this cause, since about this proportion of the sickness subsides when the bowels have been thoroughly cleaned out and disinfected. We constantly find that one degree or more of the fever disappears; the aching of the bones and muscles, restlessness, nocturnal delirium, headache, insomnia, and debility, as well as the strictly abdominal symptoms such as diarrhea, pain and tympanites, are relieved to a much greater degree. The effect on prognosis may be inferred—with such relief afforded by a single remedial measure it must be a poor sort of a doctor who cannot manage the remainder successfully.

The above considerations apply to all fevers equally, and not specially to those that, like typhoid, present special abdominal conditions. In the latter we have also to consider the presence of inflammation of Peyer's patches, later ulcerations. One of the most incomprehensible statements of Osler is that wherein he speaks of constipation in this malady as rather desirable than otherwise. Surely, when we take into account the deadly infectious nature of a typhoid stool we would not suggest it as a fit dressing for an ulcer on the surface of the body—why, then, should it be consid-

Morality attacks the licensures and stock beverages while the alcohol as "medicines" escapes.—Rabe, *N. O. Med. Journal.*

Back of all good characters and all great deeds of men and women are thought and labor; I Will and I Do.—W. B. Dewees.

ered harmless or desirable when in contact with ulcers in the intestine? We may believe *a priori* that here as elsewhere cleanliness and asepsis are desirable, and to be secured as closely as possible if this can be done without injury to the patient.

Here our argument reaches the clinical practician, who must tell us if we can secure intestinal asepsis, and how, and if this can be done with safety. Also whether the results are as we anticipate.

The testimony as to the efficiency of the method began to come to us before we had formed the conception of the situation above outlined. A physician wrote to me that he was getting excellent results from the treatment of pneumonia by the sulphocarbolate of zinc. I replied that he must be mistaken, as this salt was simply an intestinal antiseptic, and could exert no influence beyond that tract. He then stated his case—he had been losing cases until he adopted this treatment, but had lost none since; the disease had not changed its type, since the neighboring physicians who continued the old treatment continued to lose their cases; and he concluded by remarking that so long as the method gave such satisfactory results he would continue to employ it, and await with equanimity my discovery of the reasons for its success. This brought to my recollection the admitted fact that pneumonias were especially fatal when gastro-intestinal complications were prominent, and the theory here presented was evolved. It is a deduction from clinical observations, and is, I believe, thoroughly in accord with the accepted theories and beliefs in bacteriology.

At first the results obtained from zinc sulphocarbolate were simply attributed to the fact that they "killed the bacilli" in the alimentary canal. But Koch tried this salt on anthrax spores and found that they survived the application of a 5 per cent solution! This disproved the theory of its action, but not the fact of action. It became evident that the matter was more complex than at first thought, and that we must learn a lot more about the biology of the microorganisms before we could give a true explanation of the action of such remedies. As yet this study has not been concluded, but we can see that there are several ways by which the effect of the zinc may be explained. It may prevent the reproduction of the microorganisms, may interfere with their production of toxins, or with the absorption of the latter, or it may act chemically on them, or the effect may be altogether on the accessory organisms that become virulent during fevers and act as allies to the original propagators of the malady. Many explanations may be suggested—the important point is that the disproof of the microbicide action does not justify the conclusion that no useful action is possible. We are all prone to jump at conclusions not justified by our premises.

The progress of bacteriology has answered another objection raised against this method —that it is impossible to render the alimentary canal aseptic.

When Lister first devised his antiseptic methods, he endeavored to secure perfect antisepsis. This ideal proved impossible, and of the complicated methods of this great surgeon scarcely anything remains now in use. We know now that only an approximation to his ideal of perfect asepsis is within our reach; but on this approximation is built the practice of modern surgery with its glorious triumphs. Even if the skin could be made absolutely aseptic it would not remain so for the fraction of a second. Nevertheless modern bacteriology has taught us that, in all infectious processes, one element of malignancy is found in the number

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Who habitually indulges in low and evil thought will inevitably drift and sink to a lower level.—W. B. Dewees.

He who habitually cultivates correct thought as a natural sequel will drift to leading a constantly ascending life.—W B. Dewees.

of the invading microorganisms; the greater the number, the more serious being the processes to which they give rise. We therefore seek to accomplish exactly what the surgeon does—to limit the number of microorganisms as closely as possible, by sweeping them out of the alimentary canal and disinfecting it to the best of our ability. Here again we appeal to clinical observation, for whether our argument be pro or con, the correctness of our reasoning must be judged by the results of the trial, and these, as we have shown, are amply satisfactory.

In the choice of antiseptics my preference is for the sulphocarbolates, following a complete emptying of the alimentary canal, by repeated doses of calomel, salines and colonic flushings. It may be that my preference for the sulphocarbolates is partly due to that predilection which one is apt to form for the first agents of which he makes trial. I have most assuredly no claim for my own exemption from the foibles and weaknesses of men; but so far as I am able to judge dispassionately and without conscious prejudice, I have found the sulphocarbolates better suited for intestinal antiseptics than any other drugs of which I have made trial. They are perfectly safe, never causing hemolysis or hematinuria. In efficiency they are second to none. They are very cheap, and their production and sale is not controlled by any monopoly. When taken in hot water solution, there is too little taste to constitute a serious objection; and when chemically pure (and they should never be given excepting thus), they are far more apt to settle an irritated stomach than to themselves cause irritation. Finally, there are no toxic effects to be apprehended from over-dosage. For these reasons, and especially for the superior effects obtained from them, I prefer the sulphocarbolates to any other remedies of this class as intestinal antiseptics.

Chicago, Illinois.

DISCUSSION.

W. B. Dewees. My first duty is to compliment Dr. Waugh. He talks like a book, a true classic—and his words evidence the fact that he is brimful of the alkaloidal essence of whatever subject may demand his consideration. To have the honor, the felicity and the profit of hearing him speak is certainly a most edifying treat. I am sure that I voice the real sentiment of this august body when I say a *hearty Amen!* to all that he has said relative to the use of antiseptics in fevers.

This is a momentous and timely topic. It is a topic which each and every doctor cannot avoid being deeply interested in, if humanity is to receive the full benefit of the scientific progress of the healing art. In the lime light of truth in nature, it were very difficult to find an intelligently observing practician today whose convictions are not in perfect accord with the established fact that fevers are but a manifestation of toxemia. True, the toxicosis differs in different cases due to the different nature of the poison producing it. Different types and kinds of fevers depend upon different kinds and degrees of toxemias. To bring this fact home, let me ask: Is there anyone in this audience who has ever witnessed a death from pneumonia or typhoid fever or any other kind of fever, that—aside from hemorrhage—did not present all the evidence of profound toxemia? To what else can be ascribed the combined train of symptoms—the high temperature with a foul tongue; the distended, tympanitic or drum belly; the subsultus tendinum; the delirium; the coma, etc.—if not to toxemia?

"Keep the bowels open and support the heart to prevent death from pneumonia"

Whenever humanity retrogrades it is always due to the most deplorable ignorance of the care of the human body.—Dewees.

The human race evolved very, very slowly; therefore human nature changes and develops very, very slowly.—Dewees.

is an old maxim fraught with very wholesome advice for our guidance even now, at the present day, as it is in full accord with our modern idea of sepsis and antisepsis in the care of fevers. Indeed, this at once directs us to the very source of the greatest mischief—the intestinal canal—the unclean, foul and septic condition of which much too often is chiefly responsible for by far the larger percentage of grave cases of fevers.

It follows logically that Dr. Waugh is perfectly right in his contention for the use of intestinal antiseptics in fevers. Indeed, not to do so would constitute criminal negligence in the care of patients with fevers. It must be remembered that it is not sufficient to only clean out the *primæ viæ* but also to vigilantly keep it cleaned out regularly, as well as to prevent decomposition of its contents and to inhibit bacterial development, and thus prevent the formation of toxins. Dr. Waugh's preference for the sulphocarbolate of zinc for the purpose of preventing decomposition and inhibiting bacterial development in the intestinal canal we certainly must respect, since his experience, intelligent observation and study of this subject entitles him to be an authority worthy of our acceptation. His own words that he has just spoken to us are the very best evidence of this, and need no further comment to strengthen them.

I desire to call attention to two other antiseptics which have served me well in overcoming the toxemia of fevers. These are calomel and oil of cinnamon. When I began the study of medicine, over thirty years ago, the routine first things done in the care tient. Ts of pneumonia and fevers, were by the lance[illegible] gr[illegible] and sweat" the pa- grains of calomel fol[illegible]plished in due order [illegible]ins of ipecacuanha, 20 [illegible]owed by epsom salt or castor oil, and 10 grains of Dover's powder. Despite all adverse comments to this routine it must be admitted that it surely had the elements of a thorough cleaning out, and I can vouch from personal experience that in plethoric individuals it certainly proved all that could be desired so far as getting the patient in good condition is concerned, as it invariably made matters better and safer.

Following this came the next routine manner of procedure, which was the giving of calomel, 1-10 grain, ipecacuanha, 1-40 grain, powdered opium 1-40 grain, triturated with sugar of milk 2 grains, given every hour and pushed to short of ptyalism—never to salivation—with the idea of stirring up the emunctories. I remember very distinctly the claims of my preceptor that he never lost a case of typhoid fever, diphtheria, membranous croup or exudative tonsillitis in which he was called early enough to get the aforesaid effect of mercury, and so far as I know this was true with him. He taught me the giving of calomel with a view of defibrinating the blood and to stir up the emunctories, in the very same combination and manner as given before and with the same uniform success. The idea of giving calomel to defibrinate the blood has good foundation in my own experience, yet I have never seen this action of calomel described in any book nor mentioned on the floor of any medical meeting.

In evidence of the power of calomel to dissolve the fibrin and to destroy the fibrin ferment in the blood let me cite the case of my own son who when but three years of age became the victim of membranous croup. I placed him in charge of my associate who was a well cultured and advanced thinker, as well as an intelligent observer at the bedside, and who gave the child the benefit of the latest thought inculcated at his alma mater, the Medical School of Maine. On the third day, he called for me with an-

Toxic conditi[illegible]thrax the aged. The [illegible] inates mostly in [illegible]

[illegible]ons cause most of the ailments of [illegible]toxic state underlying senility orig- the colon.—Dewees.

Degeneration of the aged first produces functional insufficiency of the organs of elimination, then their degeneration.—Dewees.

nouncement that my boy was dying. Sure enough I found the child almost strangulated with profound cyanosis, etc. I promptly insufflated 20 grains of calomel in the throat, and repeated this at three five-minute intervals with the result that in less than half an hour the child wes getting more air and from that moment began to improve.

I am quite convinced that the profession of today is not sufficiently informed on the intelligent use of calomel. It is like a double-edged sword and when used right will do that which cannot possibly be accomplished with the same assured uniform good results by any other known remedy. Given in the small doses and the combination as before referred to I can give assurance that its actions will prove it to be tbe most certain and reliable antiseptic, both intestinal and systemic, in the care of patients with fever.

As to the use of the oil of cinnamon, I can also give assurance that it is next to calomel a most reliable antiseptic, given preferably in the form of spirit of cinnamon in 1-2 to 1 dram doses with milk every one to three hours. Indeed, it has often proven very effectual in hemorrhage from the bowels in typhoid fever when given in one to two dram doses. I can also speak favorably of the use of the sulphocarbolate of zinc.

Another thought and I have done. In the use of antiseptics in fevers, we must not lose sight of the fact that it is not possible to lay down an iron-clad rule for our guidance at the bedside. Clinical experience daily reminds us of the paramount need of directing the care of the sick with brains. We must learn to make use of the best means for the comfort and welfare of the patient, somewhat after the manner in which the artist makes use of his colors when he mixes them with brains to bring about the best results. What our profession needs most of all today is not so much more and better remedies as more and better thinkers and observers. Those of you who have had much experience in consultation know full well the truth of this statement. However, it is gratifying to note that we are daily making progress in the direction of getting better thinkers and observers in our ranks, and that today the average standard of intelligently observing practicians is greater than ever before in the history of our guild.

Chicago, Illinois.

THE TREATMENT OF INFANTILE DIARRHEA.*

BY WILLIAM AYRES, B. A., M. D. (Univ. Dublin).

SOME years ago I had the terrible experience of signing fourteen death certificates in one morning, in every case the death being due to this terrible complaint. That this was an experience that "gives furiously to think" will be readily admitted. I tried all the remedies that I had heard of, or that had been used in this complaint, but all to no avail. Nothing I could do would stop this awful mortality. I was in despair.

Ever since then I have devoted my spare time in getting up the literature of the subject. I read everything I could get which bore on the subject, but still was not successful until a few years ago I came across the writings of Dr. J. M. Shaller, of Colorado, and Drs. W. C. Abbott, and W. F.

*Since receiving this paper we have noticed another article upon the same subject, also written by Dr. Ayres, in the London Lancet for June 2, 1906. This recognition of the alkaloidal and "clean out" ideas by our English brethern is another evidence of the trend of the times.—ED.

We find the skin, kidneys, lungs and liver incompetent in each individual overtaken by years.—W. B. Dewees.

There is that which is benignant in studying the problems that lead to the postponement of age. W. B. Dewees.

Waugh, of Chicago. It is only fair to them to say that it is due to several hints in their essays and forms of treatment outlined by them that I have been almost universally successful, only losing one patient in 1904, and three patients in 1905. This is all the more gratifying, as I am a poor law medical officer in an industrial town, and therefore have to treat the very poorest patients.

As Emmett Holt and Flexner have shown in their brilliant researches into the bacteriology of this complaint it takes at least two days to find what is the particular microorganism causing this disease and as the complaint may be fatal in a few hours, we cannot hope to obtain much aid from such investigations, when every hour is of importance.

The first thing I do when called to a patient is to administer a purge, consisting of castor oil, rhubarb, calomel, or saline. In my experience the last two are the most efficacious; calomel, gr. 1-10, being administered every half hour, for at least four doses, and sometimes until the motions assume a bilious hue. The saline I give in this manner: Dissolve two teaspoonfuls of magnesium sulphate in a teacupful of warm water, flavor with a little lemon and then give two teaspoonfuls of the mixture every twenty minutes, or half hour, until the bowels are thoroughly cleared.

In cases where the motion is of a dysenteric character it is most useful to flush out the colon with some weak antiseptic solution. As far as medicinal medication is concerned, my chief standby has been the arsenite of copper and this drug has given me better results, either by itself or in combination, than any other drug. I give it in doses varying from gr. 1-1000 (Gm. 0000625) to gr. 1-100 (Gm. 00065). I have never cared to give it as Dr. Shaller advises in doses of gr. 1-4500 to gr. 1-5000. It is given dosimetrically every ten minutes for from four to six doses and then every two hours.

Doctor Shaller says that it was the effect of this drug in cholera infantum which converted him to active-principle therapy. I can vouch for its wonderfully curative properties.

Doctor Waugh, who seems, when he originally investigated this disease twenty-five years ago, to have been in almost as great despair as I was, thinks that there are no drugs for this complaint like the sulphocarbolates of zinc, soda, and lime, when given at a dosage of gr. 1-6 (Gm. 07). Personally when ordering these drugs I give them with magnesium sulphate, magnesium carbonate, or bismuth. The sulphocarbolates are of great use in letting us know when the intestines are practically disinfected, as when used in combination the bismuth will no longer blacken the motion, the feces being first black, then slate color, and afterwards assuming their natural color. In a recent lecture on Bright's disease, Croftan also mentions this fact.

Another great benefit from their use is that they very quickly remove the horrid fetor from the stools which is such a disagreeable concomitant in these cases. One important point should be noticed, and that is, that the sulphocarbolates must be of the very purest description otherwise they will produce vomiting and other unpleasant effects.

When giving bismuth, I nearly always employ the subgallate or the salicylate and find that they allay the stomachic irritation much better than the subcarbonate or subnitrate.

Another drug of importance is cotoin, so also are emetine and hydrastin, all given in doses of gr. 1-67 (Gm. 001) to effect.

There is an old Hindoo saying, that in cholera morbus if you can get your patient

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If the sunlight of truth kills a few sickly weaklings, acclimated to impurity and darkness, in Nature it is always so.—Dewees.

The difference between the intelligent and the unintelligent is that the former are willing to listen to new truths.—Dewees.

to sneeze he has a chance of recovery. I think that in cholera infantum if we get our little patient's skin to become suffused or red they nearly always recover. Therefore, in extreme algid cases give a good hot bath and then a hypodermic injection of atropine sulphate, gr. 1-500 (Gm. 000125) to gr. 1-250 (Gm. 00026). Infants, as a rule, bear exposure to atropine better than adults, but I have never cared to give a stronger dose than gr. 1-250, although gr. 1-50 has been injected into adults with safety. Dr. Waugh mentions the fact that he has found atropine a reliever of the incessant vomiting so often found in these cases, in doses of gr. 1-5000 to gr. 1-1500, repeated in half an hour if necessary. We may also use glonoin (nitroglycerin) in doses of gr. 1-250.

Although I never use opium, or its alkaloids in any form, I would not hesitate to use codeine sulphate, gr. 1-25 to gr. 1-12, if necessary, or Gregory's salt, gr. 1-67, giving it to effect.

It seems to me that the better way of judging the dosage of narcotics in children is not so much their age, as their weight, and also the *status præsens* of the individual case, but then why should we use opium at all when we have such good pain relievers as hyoscyamine in doses of gr. 1-1000 and strychnine arsenate in doses of gr. 1-134 when given every ten minutes to effect; they not only relieve the pain, but the straining and tenesmus which is so painful to watch.

In treating cholera infantum it is of prime importance to stop all food, more especially milk, and give nothing but albumen water, or a little ordinary water flavored with lemon, but it is wonderful how these little patients will sometimes get along with only a few sips of water now and again. If in great difficutly we might try Dr. Waugh's suggestion.

The least said about patent foods the better. As Dr. Mandfield Jones remarks: "Infants' stomachs rise superior to chemical formulae," but I frequently give one of the beef teas or extracts as it seems the easiest way for very poor people to make broth without grease.

The high fever of these cases I treat with good warm baths and small doses of aconitine.

It will be noted that I have made use of the word dosimetry. I have found this the most convenient method for the treatment of diseases of infancy and childhood.

Brierly Hill, England.

OBSTRUCTION OF THE ILEOCECAL ORIFICE AND APPENDICITIS PROPER: TREATMENT.

BY W. C. ABBOTT, M. D.

TWO cases of "appendicitis" which within the month have passed successfully under the writer's hands therapeutically, afford material for thought, and some remarks upon the inadvisability of too rapid operative interference. As a matter of fact, it is well to be cautious in making a diagnosis until definite diagnostic symptoms are present. The physician who is thoroughly familiar with appendicitis in its various forms is apt to be connected with a hospital and there operation alone is considered. The general practician undoubtedly treats cases of appendicitis without being aware of the fact; and, on the other, treats cases of "indigestion," enterocolitis or cholecystitis as appendicitis. Even today we are not always able to definitely differen-

It is not in our drugs but in ourselves that we are failures as physicians. We use too many, study them too little.—*N. E. Alk.*

In a spasm of economy the big life insurance companies are reducing fees for medical examinations—no graft there.

tiate mild cases of appendicular inflammation from other conditions having similar symptoms; therefore, no doubt, many patients so afflicted pass through the attack without any medical attendance whatever.

That non-suppurative appendicitis, where rigidity is not marked and pulse and temperature remain near the normal, *can* be controlled by medicinal measures is undoubted. We must first of all understand that the appendix vermiformis is an erratic structure; it may be found in the normal position or anywhere within the abdominal cavity between the transverse colon and the pelvic floor. It is not comforting to scoff at the claim of another physician that a given case is one of appendicitis because deep palpation over the cecal region fails to reveal abnormalities and the patient says the pain is on the left side and radiates down the thigh and into the testicle—and later upon operation to find the appendix and cecum well to the left of the median line.

The typical case of acute appendicitis is not difficult to diagnose; the unusual cases are those which make men do the wrong thing. Given a clear prior history (or description of similar pain at some former time), and if we find tenderness upon pressure about McBurney's point or in the right iliac fossa, with nausea and diarrhea, or obstinate constipation, with rapid pulse and a rise of temperature, we are quite likely to diagnose appendicitis.

All these symptoms may be caused by disorders outside of the appendix entirely. The writer believes that at times inflammatory conditions exist about the ileocecal orifice that are diagnosed and operated for appendicitis when as soon as the bowels have been freely opened and spasm and congestion relieved all the symptoms subside within a few hours.

The literature at my disposal does not in any way mention this condition, but examination of the many mild cases of alleged appendicitis will, I feel confident, prove that just such a state frequently exists. In these cases the pain is severe and cramp-like, radiating along the ileum and through to the back, and the temperature may rise to 102° or 103° F., with an accompanying small quick pulse. The tongue is typical of retention and absorption of effete matter; the breath foul and skin dry. Vilely smelling stools of thin consistence may be frequent and nausea obstinate. The patient feels faint and has a sense of impending danger. The entire train of symptoms may develop within six hours.

Upon examination there will be marked tenderness over the ileocecal area and apparent (symptomatic) rigidity which will, however, subside upon gentle but firm continued pressure. More or less induration may be felt in some cases but (and here is the important point) if the patient is thin enough the appendix may be distinctly palpated as a yielding, flattened, or slightly rounded body, slipping from under the finger tips. Near it there is a markedly painful area of varying degrees of hardness and upon pressure the patient protests vigorously. It is in just such a case that operation would be recommended by some surgeons, despite the fact that *immediate* incision and removal of the appendix is called for only in diffuse suppurative (probably perforative) appendicitis. Under proper medication these cases will proceed to recovery and if later an operation is done the field will be found in much better condition than it otherwise would, being slightly enlarged perhaps and a trifle congested but probably free from stricture, ulceration or catarrhal concretions.

The first case of the two cases under consideration presented just such a clinical

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Five dollars' worth of skill and care is too much to put on life insurance examinations that may exclude a man's cash.

Three dollars' worth of care suffices for life insurance examinations—the officers don't pay t death losses. he

picture as I have given above and operation revealed these conditions. The pain here was intense till treatment was instituted and everything pointed to a typical acute catarrhal or obstructive appendicitis *except the condition of the appendix itself.* Moreover, the stools which followed medication were revelations—plugs of mucus and mucus-covered concretions passing together with a mass of foul liquid feces and serum. Immediately after this all the symptoms began to subside, the tongue cleaned, the temperature sank first to subnormal, then regained the normal point and the indurated area about the cecum disappeared. Slight tenderness remained for two days and weakness was pronounced.

As there was an uncertain history of prior attacks of abdominal pain with diarrhea and prostration, operation was done and a slightly congested appendix removed. Evidences of local inflammatory action were apparent about the bowel. The interior of the cecum was not, of course, explored. Here I contend there was *not* an appendicitis proper but an obstruction of the ileum at the ileocecal junction or closure of the ileocecal valve.

The treatment here, as in ordinary cases of acute appendicitis, was simple but effective. Opium in any form is worse than useless, dangerous in so far as it masks symptoms and arrests intestinal activity. Hyoscyamine, gr. 1-250, and strychnine arsenate, gr. 1-134, were given in a little hot water, and aloin, podophyllin and calomel, of each gr. 1-6, were given every thirty minutes till four doses were taken. The hyoscyamine and strychnine were repeated at hourly intervals till the pupil dilated and pain lessened, when the former was omitted, the latter being continued at two-hour intervals. One hour after the last dose of aloin, etc., a *hot* saline draught was given and in two hours another, the last dose being followed in a short time by a copious foul stool.

Olive oil carrying five grains of papayotin to the ounce was now given every three hours and three pints of an alkaline antiseptic solution thrown into the colon with the tube, patient in knee-chest posture. The motions were passed into a bedpan, it not being deemed wise to allow the erect posture. Half-hourly, gr. 1-6 of calcium sulphide was exhibited from the first, and after the first stool, pupils being dilated, the hyoscyamine was dropped. A second stool bearing the concretions and plugs passed some hours later and, as stated, the case was practically well from that time. Light hot applications were applied over the abdomen constantly. After the bowel had acted and palpation revealed the reduction of induration, small repeated doses of hydrastin and juglandin were given, every three hours, podophyllin gr. 1-67 being added to every other dose. Gentle massage with camphorated oil was made over the iliac region.

In the past, many cases of supposed appendicitis have yielded with equal readiness to this treatment, and it is likely the same conditions really existed. Where the stools are unsatisfactory, and it is possible to palpate the appendicular region, this method will not fail to give results. In locating the appendix in normal cases remember that the pulsation of the external and common iliac arteries can always be felt and that the course of these vessels is approximately that of a line drawn from the middle of Poupart's ligament to the left of the umbilicus. The appendix usually lies outside this line, the base being removed about half an inch from the arteries, the lower portion crossing them obliquely. Of course the appendix *may* be adherent to the cecum, behind it, or in other abnormal positions; or, in severe cases, it may be entirely walled in by old

Blinding myself to the economy of a tablet that can be given over and over again I now crush and dissolve them.—Phelps, *N. E. Alk.*

I can control fever more quickly and effectually with aconitine than with tincture of aconite.—Phelps.

adhesions or an abscess cavity. Careful examination and the symptoms present will, however, in all such cases, be distinctive.

It is not always that the physician knows how to palpate the appendix. To do this pressure enough must be made to reach and recognize the posterior abdominal wall. The fingers of the right hand should be placed on the abdomen at the umbilicus, the examiner standing upon the right side of the patient. Now, pressing deeply, the fingers are drawn forward to the anterior superior iliac spine, the physician meanwhile noting the various structures as they pass under his fingers. Gentle manipulations are useless, the bowels and appendix slipping away; to get results we must compress the structures between the finger tips and the posterior abdominal wall. Of course, where percussion and ocular examination reveals swelling, marked rigidity or signs of abscess formation, such manipulation would be criminal.

One word as to the possibility of mistaking simple intestinal irritation with localized congestion and pain caused by indigestion for "appendicitis" and I have done. A healthy, over-fed young man, absent from home "on the road" was seized with acute abdominal pain and nausea. A local surgeon of some repute, who was called to examine the case prior to our service, promptly diagnosed appendicitis and urged *immediate operation*, saying life depended on it. He allowed the boy to walk to a hack and in it jolted him three quarters of a mile to a hospital. Here Dr. Thackeray, an associate physician, a member of our staff (I being unable to go myself), sent to the scene along with the patient's father, found him deeply under the influence of a hypodermic of morphine and with the machinery operator ready and anxiously waiting "to go." The condition of the patient was as follows: Pupils, "pin-point;" tongue deeply furred and breath foul. No temperature, no marked disturbance of pulse. No rigidity over the appendix on *deep* pressure, but rather resonance—tympanitic almost. Pain still severe and patient badly frightened. Some discomfort was experienced from handling the right iliac region but that was all.

My associate promptly disagreed with the local surgeon's diagnosis. "At least," he said, "operation is not demanded *now*." The local practician sent for a colleague who "hedged" somewhat, but "thought there was no immediate need for incision but did consider that it would be injurious—probably fatal—to move the boy to Chicago." This was reported to me by phone and I said, "Bring him home," for in my mind there was a growing doubt that it was a case of appendicitis at all and even if it was the symptoms so ably observed and reported did not call for immediate operation and did not preclude the easy removal of the patient. So the "local surgeons" washed their hands of the affair; solemnly said "his blood is upon your head," collected their fees and went home; and the boy "went home" on the train, also.

Preparatory to coming Dr. Thackeray administered hyoscyamine, gr. 1-250, strychnine arsenate, gr. 1-134, and repeated the same in fifteen minutes; after a half hour from the last dose, the effects of the morphine still being in evidence, he gave a third dose. One other dose was given when the journey was half done. Prior to the arrival in Chicago the patient had become chatty and laughed at several pleasantries offered by those around him in the car.

Arriving in Chicago after a three hours' run, I found him with no fever, no rise in pulse-rate and skin normal. He was put at once to bed and a vigorous cleaning out

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I can produce diaphoresis more promptly and certainly with pilocarpine than with tincture of jaborandi.—Phelps, *N. E. Alk.*

Emetine with ammon. carb. in pneumonia is an ideal combination for the cough and respiration.—F. C. Morgan, *N. E. Alk.*

with hyoscyamine, strychnine, etc., and an enema or two brought him to the next morning practically well. Examination now developed slight thickening of tissues about the appendix and careful percussion revealed some splashing. The tongue was cleaning, several odorous fluid stools having been passed, and the pain was practically gone. In the next twenty-four hours under the above treatment continued, and liquid diet, all symptoms subsided and a ravenous appetite developed—which was not gratified. In this way an unnecessary operation was avoided and once more a snap diagnosis was proven to be a dangerous thing—to the patient and the reputation of the surgeon alike. All of which goes to prove the necessity for a knowledge of possible pathologic conditions about the appendix and the desirability of treating first and cutting only when cutting is obviously necessary.

Whether this might have developed a full-fledged case of appendicitis or not at the hands of suggestion and mal therapeusis I do not know; that it did not I do know and that a vast number of supposed and actual acute cases properly treated can be aborted I am convinced; and should you fail, the very line of treatment recommended, by reducing congestion, and clearing up and disinfecting the bowel, will put the "field" into so much better shape for operation that it is worth the price. Aconitine, to relax capillaries; hyoscyamine, to relax spasm; strychnine to tonify longitudinal circulatory and intestinal fiber; glandular stimulants and saline elimination and all the *full effect* in dose enough, following with the compound sulphocarbolates to disinfect the tube contents and its lining mucosa, a septic decomposing state of which is usually the basal cause. To prevent attacks? Clean out, clean up and keep clean—eat right and live right—that's all. But after all has been said, it's a good deal.

Chicago, Illinois.

ACTIVE-PRINCIPLE THERAPY*.

BY R. J. SMITH, M. D.

IT WAS with considerable diffidence that I accepted the invitation of your president, Dr. E. F. Root, to read a paper at this meeting of the Utah State Medical Association.

I think any man would enthuse with his subject to have the privilege of addressing so distinguished and representative a body of physicians of the state of Utah.

My extreme diffidence, however, so overpowers any other feeling that the opportunity granted me, finds me with a dearth of words to express myself in any but a plain manner and what I have to say will be a plain statement of facts founded on a not too limited experience in practice of some fifteen years, in the almost exclusive use of the active principles.

I feel that a great many of you will exclaim mentally, if not loudly, that there is nothing new in what I am giving you, that I am a crank with other cranks of my ilk and that your time could be more profitably taken up by the discussion of some surgical subject. While I may agree with you that I can give you nothing new, that there is nothing extremely new in this Active-Principle Therapy, I take exception to the latter idea that is so strong a belief in many societies and with many individual members of

*Read at the annual meeting of the Utah State Medical Association, May 8th, 1906.

Babe, 10 days old, eyes closed, cyanosis creeping up, motionless: glonoin, brucine, atropine; a life saved.—M. G. Price, *N. E. Alk.*

One thing wrong with alkaloids—when people catch on, they expect you to work miracles—you can't always.—Price, *N. E. Alk.*

the profession that a surgical paper is more important or more interesting. If it seems so, it is only seeming, not truth, for what more interesting subject can there be for general practicians than that of a dependable therapy? I believe that the "latent optimism" of physicians is always ready to lead them into the if it light, be shown to them as light.

From a materia medica standpoint, there is nothing new in this therapy. The same drugs are used, but in a more simplified, more definite form. We are all more or less alkaloidally inclined, in that many of the active principles are as well known to, and often used, by even the most conservative. The newness lies in the fact that the form of the remedy differs and that "alkaloidists" claim to find some good in drugs. They are not therapeutic agnostics, but are positive in their belief, because they use positive, definite, active remedies.

In the opposite ranks are enrolled a majority of the rank and file, under the leadership of the "do-nothing" professors and leaders of our profession. These leaders claim that there is little in drugs and the "Amen corner" comes out strong in response, "Amen!" And the result is a discouraging pessimism, overshadowing progress along therapeutic lines.

Based on the general ignorance of the nature and action of drugs, due, no doubt, to the lack of essential training in college on materia medica, this disbelief in drug action is fostered to a greater extent by the really unreliable preparations usually prescribed. The use of these uncertain remedies breeds skepticism of the rankest sort, which ends sooner or later in the advocacy of mechanical means only in the treatment of disease, adopting the belief that all diseases are self-limited and will run their course in spite of all effort. How much more manly and more in accordance with the great aim of our profession to relieve by whatever means possible, the sufferings of our patients, to conclude not that we are helpless per se, that disease is everything, but that our means of fighting are inadequate and that we should seek better means.

To such a conclusion came the revered Dr. Adolph Burggraeve, of the University of Ghent, Belgium, over a half century ago. Influenced by the variability and inconstancy of galenic preparations, he conceived the idea of utilizing the active principles of drugs, beginning with those known at that time. His success with these led him to enlist the active and faithful service of Chas. Chanteaud, a learned chemist and pharmacist, of Paris. Each new isolated active principle was experimentally tested and where not previously known, its therapeutic activity outlined. This was the commencement of a new era in the practice of medicine. For thirty years, France has enthusiastically utilized this system of the application of old remedies in new forms, and in Germany, the home of chemistry, this revolution has made great progress.

Thirteen years ago, a young physician of Chicago, testing the Chanteaud granules in practice and noting their invariability and uniformity, perceived a ray of light in the prevailing therapeutic darkness, and with the tenacity inherent in the man, with a determination to surmount all obstacles, even to the greatest, the apathy of a not dead nor sleeping profession, with nothing in view but the benefit the profession should receive, Dr. W. C. Abbott spoke his message fearlessly and eternally. He published the results obtained, in the little 12-page CLINIC, enlisted the support and interest of other physicians, growing ever in power and strength until at the present time, as a result of his earnest work, we

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Three remedies prominent in my handling of whooping-cough—calcium sulphide, atropine, nuclein.—Sanborn, *N. E. Alk*

Gelseminine, a motor and sensory sedative; for reflex, spasmodic and irritative coughs; irritable heart, pains or irregularity.—French.

have the splendid monthly instalment of "dosimetric" (alkaloidal) therapeutics. The American Journal of Clinical Medicine, one of the most practical and important medical magazines published today.

This is no eulogy of Dr. Abbott as a successful business man, nor am I interested in his work to any greater extent than 30,000 other practicians, but it is a simple statement of the great good one man is doing the profession.

This new method of treatment, variously called dosimetry (from the French), alkalometry, active-principle therapy, aims to use the active principles of plants where these can be scientifically isolated or synthetically prepared, and also glucosides, resins, and chemical substances, whose action is known to be of value in the treatment of disease.

Let us assume that the medicinal virtue resident in any plant is due to the presence of an active principle or active principles, and that these active principles, when isolated, are pure, unalterable (except in the presence of moisture) and permanent.

The first assumption is a matter of fact, the latter is determined by experiment. Upon these two statements the value of active-principle therapy rests.

It is not claimed that an active principle represents the totality of medicinal virtue in a plant, but where it can be isolated in a pure state, it is preferable to use it, a known quantity, than to use any preparation of the plant, an unknown quantity.

An exact treatment demands an exact diagnosis and an exact remedy. An exact remedy is only possible in the use of active principles. These are administered preferably in granule form, because if given in a liquid form there is too rapid absorption by the mucous membrane of the mouth and throat, and the physiological effect is too pronounced locally. Each granule contains a minimum adult dose, protected by a soluble coating of sugar of milk. In this form the alkaloids are safe, permanent, unalterable (except in the presence of moisture), easily soluble, readily assimilated and easily administered.

They are safe because they are given dosimetrically. After determining the condition present, and the remedy indicated, the active principle is given in minimum doses frequently repeated until the desired effect is obtained. In other words we give "the smallest possible quantity of, the best obtainable means to produce a desired therapeutic result."

As there can be no absolute rule of dosage, because the impressionability of the patient, the rate of absorption and elimination are unknown quantities, and can be determined in each case only by experiment, the only safe way is to give in small doses frequently repeated until the desired result or symptoms of drug sufficiency are shown. Only in this way is there freedom from danger; are our results uniform.

It may be found that a fraction of a granule is all that may be required because of the excessive impressionability of the patient, or it may be necessary to double the minimum dose, to get the effect more rapidly or to prolong the intervals between doses. After the effect is obtained, the medicament may be continued at longer intervals, or the dose gradually decreased.

The active principles are uniform, they always act in a constant manner, are effective without being dangerous, are as readily and safely given to children as to adults, and the quantity given in any case can be accurately known. As much cannot be said of the usual galenicals. It is impossible to state how much of an active principle is contained in a dram of a tincture, even if the tincture has been standardized by the

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Veratrine is best given intensively, gr. 1-134 every 15 to 60 minutes till remedial effects are secured.—French, *N. E. Alk.*

Potassium bichromate is the remedy for the hacking cough of capillary bronchitis; gr. 1-67 every hour.—*N. E. Alk.*

addition of the combined alkaloids of the plant.

Tincture jaborandi is standardized by the addition of the combined alkaloids of jaborandi, after the tincture has been assayed as to alkaloidal strength; but since jaborandi contains four active principles, two antagonistic to the others, differing in therapeutic activity, the resultant product must vary as the active principles vary. If jaborine and jaboridine are in excess, the result will be disastrous to our patient, as those alkaloids dry up secretions, just as uniformly as pilocarpine and pilocarpidine increase secretions.

Having admitted that the activity of a plant depends on the presence of active principles, it is the part of wisdom to study carefully the individual action of each active principle. Only in this way is accuracy possible. In this way only is an exact science of medicine possible, for if our results vary, as they do under the administration of the usual drug preparations, then is explained the present chaotic state of our therapeutics. For this reason also have many physicians lost faith in drugs, and this faith can only be restored through a prolonged and thorough study of the active-principle therapy.

It is not necessary in taking up this study that all the old tried remedies should be shelved. The way to begin is to begin—and begin at the bottom. Greater progress is made by starting by easy stages until underlying principles are comprehended. As a carpenter must know his tools, so must a physician know his remedies, and by commencing with a single drug, learning its therapeutic range and activity, adding to his knowledge gradually by studying in turn the more common of the active principles, it will soon be his pleasure to regain that confidence in means, which in turn gives him confidence in bearing, without which a physician is unworthy the name.

There are certain fundamental principles underlying this treatment, first enunciated by Dr. Burggraeve. In the treatment of fevers, he found that very often it was possible to jugulate them, and always to prevent their usual development. This fact was embodied in this precept, "All acute inflammatory diseases can be aborted." But Burggraeve found that to gain this result, the diseased condition must be attacked early, and, if possible, in the incubatory stage. This led to another precept, "To acute diseases oppose acute treatment, to chronic diseases chronic treatment." In order to produce results, *cito, tute et jucunde*, it is necessary to prescribe known quantities of the active principles, and on this the whole science of the new therapy rests.

In beginning the use of these "arms of precision," it is needful that you proceed carefully and with a frank determination to act fairly. Given according to dosimetric principles, there is no possibility of poisoning, or cumulative effects, in the use of the alkaloids. They are freely soluble and, if preferred, may be given in solution as well as in granules. Being scientifically accurate, one knows exactly what quantity one is prescribing, and their action being known beforehand, a necessary adjunct to success in their use, the effect is the more easily obtained.

I have stated that the action of each remedy is known beforehand. That is the essence of materia medica. It is then only necessary to apply the remedy accurately. This in turn needs sufficient knowledge of our patient's condition, of the pathologic processes developing; one must be a good diagnostician.

Having recognized the condition present,

The Alkaloidal Therapeutics contains the material out of which is being constructed the 20th century treatment of disease.—*N. E. Alk.*

The effeminate male—football in boyhood might have so developed certain brain cells as to have made him a social being.—Howard.

whether it be incipient pneumonia, or simple congestion, a bronchitis or first stage of pertussis, or any other acute departure from normal, the practician, having his remedies always present in his case, proceeds at once to abort or to jugulate it, without waiting expectantly for a proper name for the trouble.

The manifold advantages of this therapy, the ease of administration, the simplicity, palatability, efficiency, safety and uniformity, afford sufficient reason why the active principles should be more widely used by all progressive physicians.

Their use tends to make a more accurate diagnostician, a more successful doctor, one in whom confidence in medicinal means restores the confidence of the patient in his physician.

Increasing knowledge of the action of remedies brings increased delight in the application of these remedies, and a corresponding financial benefit, as his reputation for curing quickly spreads.

A criticism of this therapy one often hears, is the commercialism shown by Dr. Abbott. He certainly knows a good thing, but so long as his preparations are what they are, absolutely reliable and dependable, there can be no decided objection to their use.

Another criticism that one often hears and that will not down, notwithstanding the fact that it has been answered time and time again, is that the active principle does not represent the medicinal activity of the entire plant. It is not essential to the argument that it should represent the plant. It is the essence of the plant, and its therapeutics are on a higher plane than those of the plant; it is more exact, more definite, more reliable and safer than any galenic preparation of the plant can possibly be.

One of the first things the student of active-principle therapeutics discovers, is that the one who follows these teachings is a crank on "cleaning out and cleaning up," and if that one fact is grasped in all its important bearings on the subject of health and disease, a great enlightenment seizes that student, and his first duty in his next case is to do some needed housecleaning, and then he can intelligently interpret the remaining symptoms. Autointoxication is at the foundation of many of the ills that flesh is heir to and a thorough scrubbing of the economy with such eradicators of filth as calomel and podophyllin, followed by saline laxative and intestinal antiseptics will do wonders for your patient and open your eyes widely to the beauties of active-principle therapy. It may seem a far cry to you, to assign credit to the alkaloids and other active principles for developing the importance of elimination, but it is a fact nevertheless. The "clean up and clean out" principle is an important one and its far-reaching results cannot be over estimated.

Another foundation stone to the successful use of active principles is the recognition of the fact that acute diseases can be aborted. This I reiterate in face of the dictum of Osler, "that pneumonia (an acute disease) cannot be aborted nor can its course be altered by any medicinal means at our command." One of the first truths manifest to the beginner is that of the jugulation of disease.

In the treatment of acute fevers, there is no remedy so certain and so safe as aconitine. Although in the galenic tincture it is often inert, prescribed in alkaloidal form it is always effective and may be given to children with absolute safety.

It is only necessary to watch the effect and to discontinue the remedy with defervescence, and to guard against prescribing it in asthenic subjects, unless its action is held in check by a respiratory and cardiac stimu-

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In England and the U. S. he is brave indeed who dares to mention any but a new German drug.—*Critic and Guide.*

The educated physician must compete with the quack on a fair field or legislation must afford the remedy.—Blesh, *Okla. Address.*

lant. A thorough study of this one drug, one of the most important in our armamentarium will remove forever any remaining doubt in the mind of an unprejudiced observer of the efficacy of the active principles.

Other remedies of as great interest and importance could, if time permitted, be discussed with benefit, but in this paper I have only touched briefly on the main facts connected with the subject chosen. If I have succeeded in arousing in you or those of you who know not the beauties of this therapeutic advance, a desire to investigate, my efforts are well repaid. Our patients deserve the best, it is due to them that we make ourselves cognizant of the best means to alleviate their sufferings and in so doing make ourselves better doctors.

In conclusion, let me state emphatically that my experience proves to me that the alkaloidal method is by far the most certain and safe method of treating the sick, that its agents, the active principles, are sufficiently numerous to meet any sane demand in practice, that they have always been reliable and uniform and have always given me good service. It is from no desire to boast or to take a "holier than thou" stand, that I seized the opportunity to bring to your notice the certainties of this therapy, as a contrast to the striking uncertainties of usual galenical practice. Medicine as a science is not exact, it is progressive, and in the final estimate, the claims of the active-principle therapy are reduced to this, that it is not contended that the active principles represent the whole plant, but only the active part, and must be studied for their effects; that they are more certain, more definite, more exact, that they are a step forward along the line of progress towards a dependable therapy.

Active-principle therapeuticians are positive in their utterances, because they have positive remedies, and if I have been too didactic or have spoken too strongly, it is from belief in the message I give you.

To those who wish to seek knowledge of this therapy, so briefly outlined, I would recommend the following books, Shaller's "Guide to Alkaloidal Medication," Castro's "Elements of the Dosimetric System," Waugh-Abbott's "Text-book of Alkaloidal Therapeutics." Their perusal will convince you of the benefits to be derived from a change from the old to the new, and the result can only be good.

Smithfield, Utah

THE ACUTE DISEASES OF CHILDREN.

BY GEO. H. CANDLER, M. D.

IV. DIPHTHERIA, ERYSIPELAS.

BOTH of these diseases have hitherto been regarded as extremely destructive to children. Diphtheria, especially, from time to time has visited communities and swept away in a few days scores of their younger members. As in scarlet fever, the virulence of the infection varies markedly; in some epidemics nearly all the children infected either die or remain more or less affected for life, while in others the mortality is light. Better sanitation and the modern methods of treatment undoubtedly have something to do with this, but unfortunately, even now the disease sometimes appears in the most favored localities in its most severe form and only rational, thorough and prompt therapeutic measures can be depended upon to save life.

Shall we take good at God's hands and not be content to take evil also? Job. It is the glory of man to pass by an offense.—Solomon.

I admire the courage of a man who without knowing how to write, wrote upon a subject of which he knew nothing.—Gladstone, on Carnegie

Children between two and twelve seem to be particularly susceptible to infection; but no age is totally exempt. Individual resistance varies to a marked extent also, some children passing through exposure after exposure with perfect impunity while others succumb immediately.

There can be no question that the condition of the nose and throat has a great influence here; catarrhal subjects are almost always easily infected and the child with a chronically inflamed buccal mucosa or enlarged tonsils offers a particularly favorable field for the Klebs-Loeffler bacilli. Lowered vitality also predisposes, and when there is diphtheria in the neighborhood the physician should see to it that the weakly children under his care are placed in the best possible condition. Thorough elimination and a course of iron, quinine, and strychnine arsenates with calcium sulphide in full doses will prove a valuable prophylactic procedure. The toilet of mouth, nose, and ears, should also be carefully performed, an alkaline antiseptic solution being used freely three times daily.

The nature of the Klebs-Loeffler bacillus is today thoroughly understood; but it is not generally known that the action of the germ is distinctively local though it produces toxins which enter the blood, setting up a systemic intoxication and causing degenerative changes in various parts of the body. In some cases where colonization is strong and absorption of toxins rapid, there follows a profound involvement of the cardiac muscles and death may result suddenly; in other cases the nervous system is particularly affected and in others again the kidneys suffer most severely. Hence it is necessary to limit germ activity, eliminate toxic matter from the body and support (and if possible enhance) the vital resistance of the patient. The microbe has been found in the glands, lungs and spleen. The Klebs-Loeffler bacillus may often be found (with a very similar but quite innocuous germ and a host of minor bacteria) in the nose, throat and mouth of perfectly healthy persons; moreover, the so-called "pseudodiphtheritic" bacilli are often present in ordinary cases of tonsillitis and, being mistaken for the Klebs-Loeffler microbe, non-diphtheritic patients are isolated and subjected to injections of antitoxin. In this way many of the so-called "mild cases of diphtheria" may be accounted for.

Etiology.—Diphtheria is peculiarly "an acute, contagious disease," orginating we do not quite know how, but invariably caused by the presence upon mucous surfaces of the Klebs-Loeffler bacillus. Poorly drained and dark, dirty localities may be looked upon as harboring the infection; light, dryness and fresh air proving the best inhibitive measures. The germ may remain active for considerable periods and be conveyed from one place to another on clothing, furniture or articles of food. Domestic animals have been accused of spreading the disease but, while it is possible for the cat or dog from an affected house to bear upon its body the bacilli, we can hardly look upon this as a very likely source of infection.

The writer is of the opinion that the virulence of the infection increases under certain conditions—indeed it is possible that the so-called pseudodiphtheritic bacilli may become changed in the presence of the Klebs-Loeffler bacilli and when provided with a suitable culture medium. Thus, a colony of otherwise innocuous bacteria might easily become virulent when in contact with the Klebs-Loeffler microbe and the patient supposedly suffering from tonsillitis might develop a typical and serious case of diphtheria. The early recognition of the bacillus is therefor imperative and in each suspicious case a swabbing of the throat should be made

It is heaven upon earth to have a man's mind move in charity, rest in providence, and turn upon the poles of truth.—Bacon.

To say that a man lieth is as much as to say that he is brave toward God and a coward toward men. —Montaigne.

and forwarded to a reliable laboratory or local Board of Health for examination.

The usual mode of infection is unquestionably direct, the use of infected utensils, handkerchiefs, etc., being generally responsible for epidemics; the breath of the diphtheritic patient is not in itself infective but the acts of coughing, sneezing and expectorating liberate millions of bacteria which may be conveyed for long distances. It is evident that all discharges should be destroyed at once and everything coming from the sick-room must be thoroughly disinfected.

The physician himself will need to use every precaution or he will become a spreader of contagion. Especially should he guard against himself receiving matter coughed up; patients having their throats treated are quite apt to throw deadly matter direct into the face of the operator. Gloves, a linen (or better, rubber) robe and a solution of formalin (1-20,000) for spraying over the exposed parts of the body will prove useful. The fact that the bacilli have lived for five months in a dry cloth must be remembered; patients should also be told that the germ may remain in the throat and nose long after the last sign of the disease has gone.

Symptoms.—Diphtheria may be pharyngeal, nasal or laryngeal. Pharyngeal diphtheria is, perhaps, the most common and the nasal form, while occasionally met with alone, is usually really an extension of this disease. Laryngeal diphtheria in many ways resembles membranous croup and the latter disorder is quite often termed diphtheria. On the other hand some cases of true laryngeal diphtheria are diagnosed and treated as membranous croup with the most disastrous results.

The period of *incubation* is not definitely known but is probably four to six days; ten days would be a safe quarantine period. *Immunity* is short, one attack protecting only for a few weeks; a second infection having been noted within two months after the first.

The symptoms of pharyngeal diphtheria are those characteristic of any severe sore-throat. There is more or less pain, soreness and swelling, and swallowing is difficult. There may or may not be a concurrent rise of temperature; in some cases 103°–104°F is to be found early and again we may have a severe case without any noticeable temperature rise at any stage.

The fauces will, upon examination, be found red, with, perhaps, points of exudate studding the surface. Follicular tonsillitis closely resembles this form of diphtheria. Soon, however, the glands in the neck swell; edema increases and the exudate spread still the membrane—at first of a dirty-white and later grayish-yellow color—covers the entire fauces, uvula and even the posterior wall of the pharynx. This membrane resembles nothing so much as a piece of wet wash-leather or chamois-skin; it is extremely tenacious, its removal causing bleeding, which may be profuse.

At this stage (usually on the third or fourth day) the disease may begin to decline or the local process may extend, involving the nose, when we shall have a foul nasal discharge, obstructed breathing, and perhaps ear and eye symptoms; or, worse still, the larynx will be involved. In the latter case we have a serious condition to combat. From the larynx, the trachea and even the smaller bronchi may be invaded and respiration become seriously impeded. Moreover, as a rule the systemic conditions keep pace with the local though this is not by any means a rule. Thus, when the pharynx, larynx and trachea are involved we usually have a profound systemic toxemia, the absorption of toxins from the large surface affected being pronounced. We shall then find the breathing labored and noisy, the inspirations slow, labored and shallow; the lower ribs and

The earth gives me its generous sap, but heaven lights me with the reflection of unknown worlds.—Victor Hugo.

The nearer I approach the end the plainer I hear around me the symphonies of the worlds which invite me.—Victor Hugo.

sternum being strongly retracted. Cyanosis is marked, the breath is fetid, the tongue foul and, in the great majority of cases, the pulse is rapid and thready and the temperature high. Death is too often the result, the end being due either to cardiac paralysis (toxemia) or asphyxiation from the occluding membrane.

In these days such cases should never be seen. If the physician is sent for at all early the growth of diphtheritic membrane can be almost positively controlled and the systemic toxemia even more surely prevented. Occasionally, however, the disease strikes heavily and, seemingly, "all at once." The child becomes feverish and complains of sore throat at night, and even the next morning, with high fever and foul tongue, marked swelling of throat and extensive growth of membrane may be found. Convulsions or delirium may present; the bowels are obstinately constipated, and the urine scant or totally suppressed. The odor from the mouth in such cases is typical and diagnosis may sometimes safely be made from it alone.

Occasionally, again, a case will pursue a seemingly mild course and on the fourth or fifth day gather virulence and invade the deeper tissues. Here we shall have extensive sloughing of the parts, profuse fetid discharges with perchance final gangrene of the affected area. Paralysis, deafness and blindness may result, even when death is averted.

Nasal Diphtheria is perhaps the least serious variety of the disease; sometimes its very presence may be overlooked. The possibility of infection here is however great, as the nasal discharges must contain a vast amount of membranous shreds and bacteria. It is well to look with suspicion upon all "coryzas" occurring during a run of diphtheria.

The complications are few but serious, paralysis, hemorrhage, bronchopneumonia, bronchitis, gangrene of the lung, and albuminuria (parenchymatous nephritis) being the most common. Paralysis may appear early or quite late and may affect merely the palate (changing the voice) or the respiratory, pharyngeal, ocular or cardiac muscles. The extremities suffer occasionally. Cardiac paralysis—which is usually marked by extremely tardy pulse and stupor—may make its appearance early or be deferred till the end of the second week, causing what otherwise appeared to be a tedious but not particularly severe case, to end fatally. A toxic neuritis may be present and various forms of paralysis result.

From the foregoing very incomplete description it is evident that we may have in diphtheria either a slight inflammatory condition in the nose, pharynx or larynx—or any combination of these—accompanied by more or less systemic disturbance and development of membrane; or, an intense, edematous inflammation of any portion or all of the upper respiratory tract with a marked local growth of diphtheritic membrane and a profound systemic toxemia, which may manifest itself in any of the ways mentioned.

Thrush and herpes may be mistaken for diphtheria by the inexperienced and occasionally after excision of the tonsils the parts look "diphtheritic" but, in none of these cases is there *adherent* membrane and the general symptoms are markedly different. A culture will prove the presence or absence of the specific bacilli. However it should be remembered that the Klebs-Loeffler bacillus may exist in the throat or nose and the patient still not have diphtheria; the clinical picture and bacteriological report alone can decide in some few atypical cases.

In scarlet fever the angina may appear diphtheritic and again an oncoming diphtheria may be mistaken for scarlet fever. The appearance of tongue, temperature, and

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God has written the promise of the resurrection not in books alone but in every leaf in spring time.—Luther.

The hardest lesson in therapy to learn is to await the permanent effect of a slowly acting drug, like berberine.

progress of throat symptoms will enable the careful observer to distinguish the two diseases in the early stages. An eruption should always be carefully looked for, as sometimes this feature appears quite late in scarlatina; moreover, the prevalence of the latter disease, the extreme prostration and high temperature with tendency to vomit will aid in forming a correct diagnosis.

The odor of diphtheria is distinctive and once experienced will not be forgotten or mistaken for that of any other disease.

Membranous Croup cannot well be mistaken for diphtheria if ordinary care is taken to examine patient and to elicit history. There is a tendency to call *laryngeal diphtheria* "membranous croup" and, when membranous inflammation commences in the larynx, it is often due to the Klebs-Loeffler bacilli; however, croup with membranous formation does unquestionably present and we have here none of the systemic disturbances which are invariably present in true diphtheria. Moreover, the patients are usually younger children, "crouping" occurs suddenly at night (after, perhaps, premonitory hoarseness or coughing during the day) and the dyspnea increases as the local condition becomes worse and the child, instead of being practically well next day, is ill and examination will reveal a pseudo-membrane with swollen and moderately inflamed fauces. The membrane is tenacious but not intimately adherent and an emetic will often cause it to be expelled in whole or part. There is no hemorrhage or bleeding from underlying tissue when membrane is separated. The pulse is not that of diphtheria, neither is the temperature elevated to any extent; 100° to 101°F being the highest point reached. During the second day all symptoms may improve, to return with increased severity the next night. A cold compress to the throat, this being covered with flannel, a full dose of apomorphine and calx iodata in frequent full doses will speedily check this disease but *it will not touch diphtheria*. In such cases bronchopneumonia may set in (as in diphtheria) but this will rarely happen under proper treatment.

In membranous croup there is no swelling of the glands, neither is there albuminuria—the latter is almost constantly present in diphtheria. For further differences the reader is referred to the article upon Croup, Scarlet Fever, etc.

The importance of early treatment and correct diagnosis is evident and it is perhaps safe to say that early and correct treatment is even more important than diagnosis.

TREATMENT OF DIPHTHERIA.

The moment diphtheria is even suspected thorough eliminative and antiseptic measures should be instituted. If it is possible to secure a specimen from the throat or nose do so in the approved manner—but, anyway, *treat for diphtheria*. First as a precautionary measure, put the child in a room devoid of hangings or useless furniture; select a chamber which is open to the sun and air; and removed from the family apartments; have the room supplied with a commode and a few easily sterilized small basins and a pitcher. These are for receiving discharges from mouth and nose, etc., and to contain antiseptic solutions, etc. A supply of squares of old linen and some absorbent cotton should also be provided, together with an atomizer for oils and another for aqueous solutions. To these it is well to add a cresoline outfit or some similar simple device for charging the air with antiseptic vapor.

This should be put in operation as early as possible and kept going throughout.

The use of antitoxin is recommended, but the writer believes that under the treatment to be outlined equally good results are obtained without it. As it is often impossible

Don't expect to cure a twenty-year constipation in a week. Miracles have given way as knowledge develops.

Chronic diseases require from us the slow favoring of nature's curative processes; you can't hurry growth of grain.

to obtain reliable and fresh antitoxin it is well to know *what* to do and *do* it, for in diphtheria the success obtained will depend upon the thoroughness and promptness of local and systemic treatment. It is presumed therefore, that antitoxin is not being used though its employment will in no way affect the medication suggested.

The patient is thoroughly bathed with a warm solution of epsom salts (one ounce to the quart of water) to which is added ten minims of creolin, and mouth, nose and ears are well sprayed, first with H_2O_2, and then with the same solution. All sputum and fluids ejected are received in a vessel containing a strong disinfectant, and the linen and cotton used as mops or handkerchiefs are burned.

The diphtheritic toxin is destroyed by moist heat and we should take care to use gargles and douches as hot as can be tolerated. The writer uses either the foregoing solution (as gargle and nasal douche) or boric acid one dram, borax one dram, potass. chlorate one-half dram, glycerin two ounces, water eight ounces. This is best applied in the form of a strong, direct spray against the affected area, always *after* a preliminary gargle (or douche) and the application—if membrane is present—of H_2O_2.

Chicago, Illinois.

(To be continued.)

CEREBROSPINAL MENINGITIS.

BY VERE V. HUNT, M. D.

CEREBROSPINAL meningitis has been known under the name of "spotted fever," petechial fever, cerebrospinal fever, purpura hemorrhagica and other synonyms. It is only within recent years that the disease is recognized as an infectious one. Late authors are all disposed to class it among the acute infectious diseases of childhood under the name of infective cerebrospinal fever. It is among the most malignant diseases of child-life, and is exceedingly fatal. It is characterized by inflammation of the membranes of the brain and spinal cord, and is likely to be attended by convulsions, paralysis and death; patients recovering being liable to affliction with partial or total blindness, deafness, hemiplegia, or paraplegia.

The disease has been known for several centuries; in Eastern countries it still passes under the name of "the plague." Throughout the United States it is commonly known as "spotted fever." It occurs usually as an epidemic, although it may appear sporadically, or endemically. It is seen more especially in the late winter months and it is not known to exist in tropical countries. Its favorite time for visitation seems to be the months of February, March and April, when, in association with cold weather, the winter is breaking, and cold rains and alternations of thawing and freezing are experienced. It is more common to malarious districts, in sections of country not too far south to experience considerable winter weather. In northern Texas, northern Louisiana, Arkansas, and the northern portions of other southern states it occurs in the latter part of winter more often than it is seen in the extreme northwest. It is also commoner along the lake shore than in the dryer sections, seeming to require a combination of cold and moisture for its best development. Like all other malignant diseases it attacks those living in unhygienic surroundings and subjects who are

Get the *Medical Record* for April 8 and study Savidge's paper on Synthetical Medicine. You will be glad we told you.

Hearst's papers advocate temperance powerfully —and advertise brands of whisky with glowing testimonials.

poorly nourished and improperly housed. Overcrowding of children in poorly ventilated school houses and in dilapidated or damp tenement houses in sections of cities that are poorly drained and sewered is one of the most prolific causes of endemics or epidemics of cerebrospinal fever.

It is seen in mountain towns supplied with water from springs impregnated by minerals or befouled by dead animals. But it must not be understood that cerebrospinal fever is limited to the hovels of the poor and the lower classes. It occasionally strikes terror to the best of homes, and, like diphtheria and scarlet fever, it is not always traceable to unsanitary conditions; yet, in the majority of instances, if the cause of its existence is sifted carefully it will be found that the child ill with this type of meningitis has been exposed to severe cold and damp weather, or to the noxious influence of sewer gas or other unsanitary air during the prevalence of cold, damp weather. It is also seen in children who have been chilled while skating, or who have broken through the ice, or got their feet wet while perspiring; sudden severe chilling from this cause resulting in cerebrospinal congestion that eventuates into typical meningitis.

In the ordinary sense of the word, spotted fever is not contagious, or but feebly so. Often but one case is seen in a family, and it is rare that nurses or physicians, or the parents of sick children are subject to it. The spread of this type of meningitis as an epidemic, or even endemically, is not traceable from individuals, nor does it follow the ordinary channels of commerce. It may prevail extensively during a single season in a large number of cities or towns, and in numerous sections of one city or town without having direct association. It is often shown that it is possible for it to be communicated by fomites.

Cerebrospinal fever is seen more commonly in children under 5 or 6 years of age, even attacking nursing infants. It is next most common during the second five years of life, and is seen all too frequently in the latter years of youth, and the early years of manhood. It is rare that a case is met with after the twentieth year of life. The health records of the United States show that it has appeared epidemically in nearly all the large cities and through the daily press the profession is constantly informed of local outbreaks in valleys, cities, and towns.

For inexplicable reasons it is more likely to be seen in mountain valleys, next in towns on rich alluvial soil, rather than in other districts. Made ground seems especially to be a favorite site, and swampy districts that freeze and thaw alternately in the early spring are numerously subjected to individual or epidemic outbreaks of the disease.

When it occurs on farms it is often traceable to a foul barnyard or pig sty to the windward of the house, or to other insanitary conditions of the immediate premises.

Pathologically, as well as etiologically there are two forms of cerebrospinal meningitis. The first is simply an acute inflammation involving the meninges of the brain, spinal cord, and medulla. Its local symptoms predominate over the constitutional and it occurs exclusively as a sporadic disease.

The second—epidemic cerebrospinal meningitis—is accompanied by all the signs of an infectious disease and at the autopsy are found in addition to lesions that are the counterpart of those occurring in simple cerebrospinal meningitis, those grave visceral and sanguineous changes, which are present in other acute infectious diseases.

On examining the brain of one who has died of epidemic cerebrospinal meningitis,

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There is nothing in medical literature more spicy than the *Critic and Guide.—New England Alkaloidist.*

How about a mechanic who should say he had less confidence in his tools the longer he used them? —*N. E. Alkaloidist.*

the convexity and base will be found most extensively involved. Its dura mater is tense, shining, and studded with numerous punctate spots of extravasation. The cerebral convolutions are flattened and the sulci deepened. The pia mater of the brain and spinal cord is thickened. The vessels of of the pia mater are always more or less intensely injected and the surface of the membrane roughened. In some cases extreme hyperemia may be the only discoverable lesion. The exudation is the characteristic lesion of this disease. A more or less abundant serofibrinous or seropurulent exudation takes place into the meshes of the pia mater. Clear serum is first effused, then it becomes milky and clouded, then yellowish, and finally a thick, viscid, greenish yellow mass, consisting of granular fibrin, pus cells, and red blood globules, which gives the surface a "leek green" color.

The brain substance is frequently softened, especially near the largest patches of exudations. This is the "mechanical softening" of French authors.

On section there is more or less congestion and punctate extravasation in the brain substance and the ventricles are usually full of serum; more rarely of pus and this pus enters the ventricles by means of the velum interpositum, or along the cerebellar or choroid plexuses. All the local changes have their primary starting point in the pia mater. Finally, if absorption occur, the pia mater often remains thickened. In prolonged cases cheesy metamorphosis occurs in the various spots in the thickened pia mater.

The changes in the spinal canal are similar to those within the cranium. The dura mater is injected, and extravasations of blood are often found upon its parietal surface. It is tense and shining. The meshes of the pia mater are occupied by the exudation, which occurs either as stringy interlacing bands forming a network, or in the form of a thick sheet completely enveloping the cord's substance. The color and character of the exudation are the same as that in the cranial cavity. The largest collections of pus are about the second and last dorsal and the lumbar vertebrae. The posterior portion of the cord is the part most involved; the anterior portion suffering only in those cases where the whole cerebrospinal tract is involved. The pia mater itself is hyperemic; it may be thicker than normal, shaggy and adherent to the cord. In some instances the exudation occurs in the form of lozenge-shaped, irregular masses whose ends are connected to one another by bands of fibrinopus. In the severest cases suppuration is so rapid that a complete sheath of pus is formed about the whole cord in a few hours after the onset of the malady. The gray substance of the cord is of pinkish color, and may be infiltrated with serum. It is sometimes reduced to a mere pultaceous mass.

In addition to these local changes there are blood and visceral changes. The fibrin factors of the blood are diminished and hence there is a loss in its coagulating power. The number of white corpuscles is increased, and the red ones are shrivelled, serrated and partly disorganized. The blood is darker than normal fluid, and rapidly decomposes when taken from the body. The ventricular fluid contains chloride of sodium, phosphate of soda and ammonia and oxalate of urea.

The heart and the voluntary muscles undergo the same degeneration and present the same appearances as in typhoid fever.

The lungs are frequently the seat of edema and hypostatic congestion is present when the disease is prolonged. Passive hyperemia, lobar, and less frequently lobular pneumonia, are often found at the postmortem.

The liver is congested; the liver cells are

Acute endocarditis:—Under the influence of nuclein the pyrexia, existing 10 days without subsiding, sank to normal.—Babcock.

Many encouraging reports have been made of the effects of yeast-nuclein in pus and cryptogenetic infections.—Babcock.

often cloudy and granular, i. e. there is albuminoid or fatty degeneration.

The spleen is enlarged and softened; the lymphatics are usually hyperemic, having a fleshy look. The intestinal mucosa is hyperemic and the follicles are congested. The projecting agminated glands are sometimes ulcerated. There is more or less congestion of the kidneys; the microscopical changes are those of the first stage of Bright's disease. Abscesses (as in typhoid) often form in the subcutaneous connective tissue. Bedsores are not rare in those parts subjected to pressure, and gangrene is sometimes present.

The integument is often the seat of petechial spots and large irregular discolored patches are sometimes seen over the body. Herpetic spots are frequently seen on the surface of the body, on the face and about the lips especially. Rigor mortis is marked and very much prolonged. Finally the serous membranes are frequently all covered with petechial spots and small extravasations.

The cause is found in a special microorganism of oval shape occurring mostly in pairs and faintly tremulous, resembling those found in pneumonia and erysipelas, though hardly identical. It is known as the diplococcus intracellularis meningitis of Weichselbaum. The pneumococcus is also found in many cases, and it is probable that other bacteria have a causative relation to the disease.

In the first week of the fever the diagnosis is often difficult between cerebrospinal meningitis and typhoid. Later in enteric fever the characteristic erruption appears, the spleen enlarges, the pulse becomes dicrotic; the nervous symptoms are not prominent until the beginning or toward the end of the second week. The headache disappears at the end of the first week; the Widal reaction is present. In enteric fever the onset is rarely sudden; there are marked prodromes, such as headache, epistaxis; vomiting is very infrequent. The temperature curve in enteric fever is characteristic, rising steplike in the first week, being subcontinuous in the second, remittent in the third, and intermittent in the fourth week. The onset in cerebrospinal fever is sudden with chill or convulsion; marked rigidity of the muscles of the back of the neck, violent headache and marked vomiting of the cerebral type. Herpes is common. The temperature is not characteristic and the nervous symptoms are much more prominent than in enteric fever.

Divided according to the severity of the lesion into three groups—the common form, the fulminant and the abortive—the symptoms may be divided as follows:

The common form begins abruptly with a chill, excruciating headache, persistent nausea, vomiting, vertigo, and an overwhelming sense of weakness. Within a few hours the muscles of the back of the neck become rigid and retracted (tonic spasms) with decided pain upon moving the head. This rigidity and retraction soon extends to the back, when opisthotonos occcurs. There is great restlessness and the surface of the body becomes highly sensitive (hyperesthesia). Cramps in the muscles of the legs and elsewhere, and spasmodic twitchings of the lips and eyelids come and go, and finally convulsions or delirium occur, intolerance of light and in some instances amaurosis, more or less deafness, loss of sense of smell and taste soon following. The temperature and pulse records are irregular. From the first day to the fifth an eruption of petechiæ or purpura occurs in the majority of cases, and also an herpetic eruption, beginning as herpes labialis, appears. The tache cerebrale is usually to be obtained. The disease reaches its height in from three to eight days and passes into stupor and coma, or amelior-

Ulcerative endocarditis:—Sansom reported a case in which under sodium sulphocarbolate great improvement occurred.—Babcock.

Ulcerative endocarditis:—For benefit from soda sulphocarbolate rapidly saturate and sustain for a long time.—Babcock.

ates and passes into a protracted convalescence.

The fulminant form.—Severe chill, depression and in a few hours collapse. The patient is overcome by the poison and never reacts.

The abortive form consists of one or more pronounced characteristic symptoms during the course of the epidemic.

Treatment—To relieve the pain, morphine in small doses may be given every half hour until relief is obtained, but never in the case of infants with any symptoms of lung involvement, because their muscles of respiration are easily paralyzed by opiates. To reduce the fever there is no remedy equal to aconitine unless it be veratrine, although gelsemin will often be found of service. The adult dose of aconitine amorphous it should be remembered is gr. 1-134. One granule every fifteen to thirty minutes in the height of the fever until the symptoms are relieved, then one every hour or more in order to sustain the effect; it is always safe to push the effect. In view of the fact that this disease seems to have a predilection for young children "Shaller's rule" must not be forgotten: "Dissolve one granule for each year of the child's age, and one for the glass in twenty-four teaspoonsful of water." This rule must also be employed in administering veratrine to the little patients. Given in the dose of gr. 1-134 every half to one hour with a full and bounding pulse, it should be suspended or given less frequently when the pulse becomes soft. Gelseminine acts mainly through the spinal cord, and presents a good picture of the principal symptoms herein; nervous tension, bright eyes and flushed face. One to two granules may be given every one, two or three hours, observing "Shaller's rule" again with the children, teaspoonful doses being administered at the times the granule would be given to adults. Not only does gelseminine control exalted muscular action but it is of value in relieving exalted sensations of pain. The standard granule is grain 1-134.

Where heart weakness is manifest the other remedies should be guarded with digitalin, standard granule gr. 1-67. When the vasoconstrictors have lost their power over the arterioles; when the pneumogastric can no longer retard the heart action this is the drug. It is contraindicated in any cardiac affection in which the arterial tension is not below normal. The general symptoms improve under its use, even when no modification is evident in the frequency or regularity of the pulse.

Where the patient is robust and it is necessary to reduce excessive fever and relieve pain promptly acetanilid should be used by giving an additional dose of five grains to be followed in two hours by a similar dose. Two grains then may be given every two hours until reduction of the fever, or until there is some other favorable change in the condition of the patient. It is a safe remedy for children and may be given in one grain doses every two hours until the fever is reduced or the pain alleviated. In case cyanosis makes its appearance the remedy should be withdrawn entirely and it must never be used except where the pulse is strong.

Atropine and hyoscyamine may be used in small dosage to flush the capillaries and relieve central congestion. Hyoscine is the best given in doses of gr. 1-500 every hour until results are manifest.

Shoemaker, regarding it as very much more powerful than hyoscyamine considers it may be used with advantage to allay the convulsions of cerebrospinal meningitis. For localized congestion, particularly of the brain, a minute dose of atropine frequently repeated, just enough to stimulate the

Ulcerative endocarditis: Sansom's case posted 10 months after recovery, autopsy showed cicatrization.—Babcock.

Ulcerative endocarditis: Salicyl antiseptics for rheumatics; but do not forget their depression of the heart muscle.—Babcock.

vasomotors, works like a charm. As an antispasmodic the standard granule, gr. 1-500, may be given, one every fifteen to thirty minutes until effect. The adult dose of hyoscyamine is gr. 1-250 every fifteen to thirty minutes until dilation of the pupil or relief occurs in acute spasmodic conditions, then every one or two hours as needed. In regard to all three drugs it should be stated that children require about one-third larger doses proportionately, applying "Shaller's rule."

Cicutine, the active principle of Conium maculatum, is another remedy that acts through the spinal cord as an antispasmodic and relaxant; it also relieves the pain, but it is not as anodyne as morphine. In tuberculous meningitis it lowers the fever and sedates the excited brain. Indeed with all maladies of infancy with hyperesthesia it may be employed with success. The best preparation is the hydrobromide, the dose, gr. 1-67, to be repeated as often as the conditions indicate, every ten to twenty minutes to three granules every four hours. When the anodyne power of cicutine, while not equal to that of morphine but free from the physical and moral objections accruing to the use of all opiate derivatives, is fully comprehended, it will become one of the standbys of our practice.

It is essential that the bowels should be kept open. For this purpose calomel and iridin should be pushed in large doses and the saline laxative used freely.

Nuclein, five to ten drops hypodermically every one-half hour, acts wonderfully well, promptly producing a rapid increase in the number of leucocytes thus reinforcing the bactericidal power of the blood many fold. There must be caution used not to overwork and therefore exhaust the cells.

Revulsive measures of all kinds that act without weakening are indicated. The patient should occupy a carefully-darkened room where he can have perfect quiet and be free from the possibility of disturbance. The diet should be nutritious, largely fluid and administered at short intervals. When swallowing is difficult the nasal tube may be used. The head should be shaved, if there is much hair, and icebags applied to it and along the spine. Venesection has been advocated to relieve intracranial pressure, but it is of very doubtful value. Dry cups and leeches to the back of the neck or back of the ears and temples are used for the same purpose, and sometimes with advantage. Cool sponging is useful to allay the fever. Hot baths and hot packs are warmly recommended by a number of authors. While in the bath an ice bag or an ice coil is kept upon the head.

When the affection is chiefly or wholly spinal, Bramwell speaks in terms of high commendation of the use of blisters and of tincture of iodine applied along the spine in the region implicated. The application of hot mustard baths to the feet, the external use of turpentine and stimulating enemata are indicated, if simple means fail to keep the feet from becoming cold which they must never be allowed to do.

Iodide of potassium is of value during the subsidence of the symptoms, to hasten absorption of the exudate. Convalescence being slow, this stage requires in addition to a generous diet, cod-liver oil, arsenic and strychnine as general tonics. It is advisable to continue the iodide until absorption of the inflammatory exudate is as complete as possible. This is not truly alkaloidism as regards the iodide, I admit, and no doubt the continued use of nuclein would produce just as good, and possibly more satisfactory results; while calx iodata is a better iodine preparation. Calcium sulphide also deserves trial.

Blackwell, Oklahoma.

Rheumatic ulcerative endocarditis: Incline to attribute benefits of salicyls to local intestinal antisepsis.—Babcock.

Fermentative processes and diarrhea are very common within the digestive tube of septic patients.—Babcock.

DEPARTMENT OF
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THE SCOPE OF SURGERY IN THE TREATMENT OF GASTRIC INDIGESTION.

BY WILLIAM E. GROUND, M. D.
Surgeon to St. Mary's Hospital.

DURING the last few years surgical therapeutics have made rapid strides toward placing the treatment of many forms of confirmed dyspepsia clearly within the surgical category, and in many others the confirmation has been prevented by timely surgical intervention—not to say anything of lives prolonged and suffering obviated. It is not my desire to deal exhaustively with this subject but to call attention to some facts underlying surgical management of some of the dyspepsias of gastric origin.

The time was when the treatment of chronic gastric indigestion or dyspepsia meant an off-hand prescription of bismuth, pepsin or charcoal, or a bitter tonic with a mineral acid and perhaps a cursory allusion to diet and little or no preliminary examination of the patient as to exact conditions at fault. As a consequence chronic digestive disorders are very frequent and call for daily consideration. Most cases of stomach dyspepsia yield readily to appropriate medical treatment, but there are many who have not received benefit from drugs, lavage, electricity, hydrotherapy, exercise and diet, to whom surgical intervention offers the only hope of restitution.

It is now well established that many forms of digestive disturbance are dependent upon conditions entirely outside the stomach and involve the stomach either by direct extension of the pathological process or indirectly by nerve influence. Among these may be mentioned inflammatory or irritative lesions in the biliary apparatus, pancreas, duodenum or appendix.

The influence of low forms of inflammatory or degenerative processes in the appendix, producing irritation, adhesions, strictures and angulation of that organ, is not fully appreciated as a disturber of normal digestion. I mean lesions of the appendix that rarely come to perforation and abscess-formation, but remain as sources of irritation through sympathetic nerve distribution. We know what great disturbance of the stomach is produced by the initiation of an attack of acute appendicitis, of nausea and vomiting and pain referred to the region of the stomach and umbilicus. My experience with appendicitis now reaches one thousand operative cases; two-thirds of these cases showed no gross suppurative lesions at the operation, but ninety per cent gave histories of digestive disturbance. The fixed idea that I get from operating upon 1000 cases and the observation of at least 500 more that were not operated on or were seen in the work of others, is to the effect that abnormal conditions in the

appendix, even though they may not go on to suppuration, are a constant menace to the normal digestive process.

Within the stomach conditions remediable by surgical means are: perforative and non-perforating gastric ulcer, chronic gastric ulcer, hemorrhage, pyloric obstruction, gastric dilatation with stenosis, hyperchlorhydria and cancer. It will be seen that most of these are of an ulcerative nature, i. e. either due to the direct presence of the gastric ulcer itself, its predecessor (hyperchlorhydria) or its sequence (cicatricial contraction). Within the last decade great progress has been made regarding the physiology of digestion, principally through the invaluable work of Moritz, Pawlow, Cannon and their confreres. In this connection we must not forget the influence operative surgery has had upon the identification and study of initial processes as against end-results and post-mortem findings, where the true nature of the early pathological process must necessarially be obscured. Regarding work along this line in gastric surgery must ever stand the name of Mayo.

Physiologically the stomach may be divided into the cardiac or reservoir portion and the pyloric or grinding portion. In the cardia the food is first received and lies macerating and practically undisturbed for a considerable time, its contents remaining unmixed with gastric juice. As pointed out by Cannon in 1898, salivary digestion may here continue for two hours or more, without interference by the acid gastric juice. The food is gradually fed into the pyloric portion by peristaltic rings moving from the middle to the end of the stomach where it finds a closed pylorus and is returned by a central current back to the cardiac portion. This process is repeated until the food has been reduced to a semi-solid consistency when the pyloric sphincter opens and allows the mass to squirt through into the duodenum, little at a time.

Realizing the amount of abuse the stomach is subjected to by way of improper and poorly-masticated foods and the enormous additional work placed upon the grinding portion of the stomach in consequence, we can readily see why the pyloric end of the stomach is so frequently the seat of active pathological changes. It is here gastric ulcer is most commonly found. Given a constitutional predisposition, hyperchlorhydria, and the traumatism sustained by the pyloric portion of the stomach in attempting to do what the teeth should have done it is no wonder gastric and duodenal ulcer is the frequent cause of "dyspepsia." In acute ulcer the establishment of physiological rest and the removal of irritation by the withdrawal of food by the mouth, generally results in a cure; but inasmuch as a patient can be nourished only very briefly and very poorly by the rectum and inasmuch as the irritating effects of the food presence in the pyloric or ulcer-bearing area is to prevent healing, it is plain to be seen that if we could in some way secure rest and overcome irritation the healing of the ulcer would be easily accomplished. It is just at this juncture that the surgeon comes in.

Kelsey many years ago recommended and practised left inguinal colostomy for the relief of malignant and benign ulceration about the rectum, and in the urethra Reginald Harrison called attention to the fact that ulcers and strictures would disappear if the irritating effects of the urine-stream were diverted by establishing a deep perineal fistula. And so in the stomach it was assumed that by making an anastomosis with the jejunum and the most dependent point in the greater curvature of the pyloric portion of the stomach, the

Ulcerative endocarditis: Prevent putrefactive fermentation by intestinal antisepsis, nutrition improves, vital resistance augments.—Babcock.

Endocarditis: Remove intestinal sepsis, possibly the system may be able to cope successfully with the original invader.—Babcock.

food-mass would be short-circuited, so to speak, and be permitted to pass into the bowel without coming in contact, to any material extent, with the raw ulcer-surfaces. The process of digestion is then completed in the intestine and thus pain and pylorospasm due to irritation and overdistention avoided.

The vividness of this picture has been materially dimmed by the researches of Cannon and Blake, who showed by feeding gastro-enterostomized animals food mixed with bismuth and observing the course the food takes in passing out of the stomach. It was noted that unless the pylorus was closed the food-current would persist in passing through it in preference to the new opening and even under the great difficulty of a partially obstructed pylorus the stomach-contents would seek the natural outlet. But whatever the explanation the fact remains that a gastro-enterostomy yields the most positive results in chronic ulcer and its consequences, such as cicatricial contraction, etc.

The theory I have advanced and have seen nowhere else advocated (although it may have been) is to the effect that the cutting of the muscular fibers of the stomach wall preparatory to making the anastomosis has a suppressing effect upon the muscular contraction resident in this portion of the stomach and especially doing away with the muscular unrest necessarially associated with presence of ulcers. The same result is secured in ulcer and fissure of the anus when we resort to cutting the sphincter to obtain rest and allow the fissure to heal. This phase of the subject I discussed exhaustively in a paper before the Western Surgical and Gynecological Association at Kansas City, last year on "Gastric Dyspepsias Amenable to Surgical Treatment." A considerable experience in the operative treatment of gastric ulcer carries the firm conviction that in surgery we have a safe and reasonably sure means of permanently relieving a class of confirmed sufferers from dyspepsia, and in addition the mitigation of chronic ulceration and irritation, which if not the direct cause of malignancy is at least a strong contributing factor. The profession is on the alert to anticipate the early indications of cancer-formation in other parts of the body; why not the stomach? —especially when it is known that the stomach is one of the most common seats of malignancy. It is also fully appreciated, at least by many, that medical treatment is of no avail in stomach-cancer and that cancer here is beyond the reach of the possible beneficial effect of topical applications and the x-ray; consequently the only hope the poor victim of gastric cancer has is early removal by surgical means.

Surgery has done much to relieve patients where the disease early involves the pylorus and it promises much more where the operation is done in the early curable stage. Cancer here is at first as in other organs local and removable. Much valuable time is lost in trying to make a positive diagnosis by clinical and laboratory methods, which are all very commendable in their way, but generally by the time the diagnosis is made the patient is beyond recall. Knowing what is at stake the only rational thing to do when obscure gastric symptoms come on in the cancer-age is to make an exploratory incision. An exploratory incision is as devoid of danger in proper hands as it is possible for anything to be. The only risk assumed is the risk of the anesthetic, and even this may be done away with by the use of the modern local anesthetic technic.

Superior, Wis.

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The suggestion made by Dr. Ground,

Intestinal antisepsis in ulcerative endocarditis: Employ these and all other means of possible improvement.—Babcock.

We are certainly warranted in giving antistreptococcic serum a trial in cases of septic endocarditis.—Babcock.

that much of the benefit following gastro-enterostomy is due to the muscular rest induced by cutting through the stomach wall, is an exceedingly interesting one. But it does seem reasonable. What say our readers?—Ed.

THE DUTY OF THE FAMILY PHYSICIAN IN INCIPIENT INSANITY IN WOMEN.

BY ERNEST HALL, M. D., L. R. C. P. (Ed.)
Surgeon to Burrard Sanatorium, Vancouver. Fellow of the British Gynecological Society.

THE development of abormal mental symptoms, unassociated with uremia or elevation of temperature, frequently causes the general practician to think that the patient has passed beyond the limits of his therapeutic jurisdiction, and is hastening to the state hospital where too often political preference *plus* and therapeutic exactness *minus*, are recognizable factors. The observation made by Dr. Bernays in discussing the work of the Mayos is *apropos* here. He says: "Their methods will demonstrate to any surgeon the great advantage of using the autopsical method of pathological study on the living, over the autopsical or necropsical method. The post-mortem or autopsical method of pathological research shows us as a rule, only the terminal or incurable stages of disease." This is true. The treatment and operating-room must take our most careful attention first, supplemented, if need be, by the pathological laboratory.

From the theory of diabolical possession we passed through mental to physical disease, and for a time the attention centered upon the brain, then the pelvis, and now we recognize that wherever there is sufficient irritation from functional derangement or structural disease, intestinal toxemia or meningeal inflammation, there we may find the exciting cause of "mental disease."

The hypothetical basis of alienists, and the classifications based upon manifestations, need but a momentary consideration, neither should we trouble ourselves with vexatious queries as to mental and physical relationship, interdependence, or unsolved psychological problems. When the rudder-chains of life are weakening, and the frail craft no longer obeys the will, our duty is immediate action, knowing that the standard of tissue-integrity has been lowered, and that the abnormal mentality is but the erratic effort of irritated or poison-ladened organs to discharge their functions. A large majority of these cases respond readily to medical care, and the sooner the case receives treatment, the better are the results. No case should be given into the care of the state hospital, or worse still, confined to gaol awaiting the action of the authorities until every diagnostic means has been used, and all possible therapeutic attempts made. To have the family physician exercise as much care in the treatment of incipient insanity as in a given case of typhoid fever, would be to very largely diminish our asylum commitments, and prevent many a broken household.

When, as has so often occurred in the writer's experience, suicidal mania of several years' duration has vanished after the removal of an adherent ovarian cyst, when acute mania, "hopelessly incurable," is restored immediately upon convalescing after removal of adherent appendages, acute mania, certified by two physicians

Septic endocarditis:—Strychnine should be given in full doses, yielding best results if given hypodermically.—Babcock.

Septic endocarditis: The antiseptic deserving special mention is sulphocarbolate of soda.—Babcock.

for asylum commitment instantly relieved by the extraction of an ulcerated tooth, and delusional insanity, case after case, restored to health after the removal of pelvic pathology, is there not encouragement for the family physician to consider carefully whether or not he has discharged his full duty to the sufferer, if he has failed to interrogate any organ and function to the fullest extent of his power?

In addition to the usual methods, medical and surgical, we have added Dr. Turck's method of intestinal and gastric lavage, in cases of indigestion, dilation or constipation. We consider it a valuable aid in the treatment of these cases.

What then can the general practician do when confronted with a case giving evidence of abnormal mentality? Remove obstructions, repair structures, restore functions, and thus heal the broken-hearted, bring deliverance to the captives, and give the oil of joy for mourning, and the garment of praise for the spirit of heaviness.

THE PRELIMINARY PREPARATION AND POST-OPERATIVE TREATMENT FOR ABDOMINAL SECTION*.

BY FRED FLETCHER, M. D.

IT IS the aim of every surgeon to please the hospital patient, and to this end, when his work is carried out in a general or "open" hospital, rather than a private institution, it becomes necessary many times to "prescribe for anxieties and splint broken hopes." This especially obtains for the selected, rather than elective or emergency case.

We physicians who have served an interneship, and have lived, as it were, behind the scenes of active hospital life, know that the incipient complaint of the average hospital patient during the first twenty-four hours after admission, is one of dissatisfaction with environments. Usually the attending physician can be held primarily accountable for this paroxysm of discontent, since he has pictured hospital life and its "home-like features" in a wise which is not. Psychical remedies can be prescribed to advantage, and in so doing, the physician prevents that infirmity of will, discontent, which, when added to the worry of operative intervention, tends to exacerbate the physical and mental exhaustion, and lessen the patient's ability to bear the operation. This remark may seem ambiguous, yet merits consideration, since it is based upon the observation that patients who enter the hospital possessed with a knowledge that an operation necessitates some previous preparation, will invariably submit to the routine of preparation without surprise or complaint, while the practice of a similiar ordeal on a less knowing patient will disturb the equanimity, and occasion the cry of Job, "Cease then, and leave me alone." This untoward occurrence can be obviated in the majority of cases, and at an expense of neither time nor the *giving* of a heart to heart talk on the behalf of the physician. When advising hospital treatment it is well to suggest to the patient that, on the day previous to the operation she will be given a cathartic, an enema, a douche and a physicial preparation of the abdomen. The true character of hospital life and the

*Presented to the Columbus Academy of Medicine, March 17, 1906.

Unsanitary environment and sewer gas emanations are capable of setting up fresh infection in old valve disease.—Sir Douglas Powell.

Acute septic endocarditis: Sustaining the heart and avoiding needless work are urgently required. —Babcock.

suffering incident to any operative procedure should never be misrepresented, for, if intelligent, the patient will act best when dealt with frankly. When dealing with a certain class of individuals it is wisdom to lend this parting thought, namely, that the unnecessary yelp of complaint and fault-finding will in no wise sharpen the fine edge of the nurses' sympathy, nor lessen her "stern strength of promise and control," but instead, a normal degree of patience, together with an occasional expression of gratitude, will control the attention and consideration shown by the attending nurse.

PRE-OPERATIVE HOSPITAL LIFE.

Every patient upon whom a laparotomy is to be performed should be examined from head to foot. The urine should be analysed the day before the operation, and the blood investigated, providing its histology seems altered. In the average case nothing is gained by procrastinating. Ochsner says: "The effects of waiting for a number of days, and sometimes for several weeks, to allow a patient to get into a more favorable condition, is a bad practice. His strength is impaired by confinement, and his nervous system suffers by looking forward to the operation for a long time. The exceptions are in those patients in whom the heart, the kidney, or the blood are seriously impaired, and who might be placed in a better condition by waiting; and in cases in which infection is present which might become circumscribed or may be eliminated." Obese subjects who suffer from hernia can be operated with a minimum degree of danger if they are placed upon a systematic (home) treatment for the reduction of the fat, but, other than this, and the conditions mentioned, a stay of twenty-four hours will suffice for a satisfactory preparation of the patient for operation.

Long before the laboratory will show kidney disturbance there is a renal physiognomy which is unmistakable.—Savidge.

PRE-OPERATIVE DISINFECTION OF THE PATIENT.

Fortunately the day of excessive purgation and starvation for twelve to twenty-four hours before the operation(in a vain attempt to prepare the patient's system) has given way to a method of treatment based upon reason. "The practice of hypercatharsis is wholly wrong; it is an evil which further weakens peristalsis, aggravates post-operative thirst, and by draining the circulation, stimulates all of the absorbent functions, and thus lays a foundation for systemic sepsis in the presence of unavoidable local infection."—Reed.

"Unless there is some special reason in the physical condition of the patient, the following steps are taken in his disinfection previous to the performance of any operation. He receives a full warm soap and water bath the day before the operation. For the disinfection of his alimentary canal he receives two ounces of castor oil in the foam of beer or malt, directly before taking his bath, and a large warm-water enema on the morning of the operation. He is given a light diet, consisting of sterilized foods, and allowed an abundance of hot water in order to favor elimination through the kidneys."—Ochsner.

I have learned from experience that two ounces of castor oil, given at a single dose, is very infrequently retained. However, the drug can be satisfactorily administered, and the dose repeated within a half hour, when the amount given does not exceed an ounce. The patient should receive neither nourishment nor drink for at least two hours before the operation. If the bladder can not be emptied voluntarily, it should be catheterized one-half hour before the patient is sent to the operating room.

I neither advocate nor practise the shaving and scrubbing of the abdomen the night

A boy with a broken leg from football has a far brighter outlook for success than the coddled darling.—Howard, *Med. Record.*

previous to the operation. The patient is sent to the operating room without any preliminary cutaneous preparation, and the skin prepared immediately before operating. The parts are shaved and the field of operation cleansed by thoroughly scrubbing with green soap and warm water, using a good-sized piece of gauze instead of a rigid nail-brush. The surface is next scrubbed with a piece of aseptic gauze and sterile water, and is followed with a thorough cleansing with alcohol and a washing of the parts with a 1 to 1000 solution of bichloride. The operation-room preparation of the patient can be carried out by the surgeon or his assistant, whose gloves can be removed at the commencement of the operation. The few extra minutes required for preparing the field of operation is the only disadvantage. In the absence of a special surgical nurse—one whose duty it is to give all operative cases their preliminary preparation—the surgeon will find his operative work (in "open" hospitals) free from infection if he recourses to the operating table preparation of his patients, rather than the septic preparation made innocently by inexperienced pupil-nurses. This statement applies to 90 per cent of all general hospitals.

THE ANESTHETIC.

The choice of an anesthetic should be made to correspond to the patient's physical condition. The anesthetic is comparatively safe when administered by a skilled and intelligent physician. "The mental condition of the patient has an immense influence in hastening or retarding complete anesthesia. It is requisite for the narcotizer to have full control of the patient, and with the beginning of the anesthetic he should enforce silence. The secret of success lies in the manner in which it is commenced and the degree of care exercised during its continuance."—Senn.

Personally, I consider anesthol the anesthetic *par excellence*. It can be given by the drop method, on an Esmarch inhaler, usually without strangulation, suffocation, or discomfort to the patient. When properly administered, even without the preliminary dose of morphine recommended by Meyer, the stage of excitement is usually absent, and narcosis passes into a stage of tolerance within from two to five minutes.

I have had no personal experience with scopolamine-morphine as a preliminary to anesthol narcosis. However, I have observed the pre-anesthetic, the anesthetic, and the post-operative condition of patients upon whom it was used by other surgeons. My observations have led me to believe that the injection is wholly uncalled for, because, when anesthol it given, mucus is never troublesome, and the respiratory excursions remain unimpaired until the patient is drowned with the drug. Furthermore, excessive thirst and obstinate nausea and vomiting follow the intelligent use of anesthol very infrequently. Invariably, it requires more anesthol to "get the patient under," when a single dose of scopolamine-morphine is given, and I doubt whether a less amount of anesthol is requisite for the maintenance of anesthesia than would be used by one skilled in its giving in the absence of the preliminary injection. Less anesthol offers no advantage when compared with the disadvantage from the use of morphine, the bringing of the patient to the operating room in a semi-delirious state; the stage of excitement, and intolerable post-operative thirst. "In 1500 cases of scopolamine-morphine anesthesia reported there have been fourteen deaths. Since the only claim which scopolamine has upon the attention of the profession is the purpose of avoiding the known dangers of anesthesia by the old methods, its claim must be con-

Football is one of the greatest factors we have ever had in colleges to produce moral men.—Howard, *Med. Record*

Strong, virile, rough, dangerous, if you will, contests make against moral and physical degeneration.—Howard, *Med. Record.*

sidered as far from being proven. Fourteen deaths are sufficient warning that scopolamine is not sufficiently understood, and that it should not be used if any other anesthetic is available."—Taylor.

The practice of giving a hypodermic of morphine preliminary to the administration of ether should be condemned. Atropine can be used to advantage. Ether should be preceded by the ethyls, preferably ethyl bromide, and given by the drop method on five or six thicknesses of gauze laid across the face. By this method a skilled etherizer will not use more than four to eight ounces of ether during the performing of an ordinary abdominal section. I am not unacquainted with the treacherous action of chloroform or the uncertain Billroth mixture, and have used neither since my hospital residency. I have never used scopolamine-morphine for general narcosis.

POST-OPERATIVE TREATMENT.

Skill is required in the after-treatment of abdominal cases. Many things may arise requiring intelligent handling, without which, they assume the importance of serious complications and endanger the patient's life.

With the completion of the operation the patient is returned to the so-called anesthetic bed, made warm by the use of rubber bags, rather than glass bottles. The patient should be entrusted to the care of a senior nurse for a period of eight hours subsequent to the operation. Nothing adds so much to the prompt reaction and ultimate recovery of a patient, whose condition is poor, as the attention lent by an experienced and intelligent nurse, one competent of not only recognizing an impending danger, but, as well, versed in the art of doing things which add to the patient's comfort.

There is no routine post-operative treatment. Shock (depression or collapse) and the untoward post-operative symptoms vary in severity according to the patient's physical condition, the extent of the hemorrhage, the character and time required in the performance of the operation. One patient will have practically no depression, regain consciousness without nausea or vomiting, and have an uninterrupted convalescence, following the performance of an abdominal section, while another will require treatment for—

SHOCK.

The best way to treat shock is to prevent it. The excellent mental condition of the patient incident to the brief pre-operative hospital period, the avoidance of the habit of starvation and excessive purgation, the services of a skilled narcotizer, and, "in the absence of an imbecile operative deliberation," the maintenance of the body-heat, constitute the prophylactic therapy for shock.

Severe shock demands energetic therapy. The foot of the bed should be elevated, the patient protected from draft, and kept warm by means of artificial heat. "Ordinary stimulants seem of little avail. The infusion of salt-solution does good, but, unfortunately, the benefit is temporary, except in cases associated with hemorrhage. Crile says that in order to increase and sustain the blood pressure when the vasomotor center is exhausted "it is necessary to create a peripheral resistance either by a drug acting upon the vessels themselves or by mechanical pressure," and recommends the intravenous injection of a 1 to 50,000 solution of adrenalin chloride"—Da Costa. Enteroclysis is beneficial. Enemata of hot coffee or saline solution, with the addition of two ounces of whisky, can be given every two hours. The enema should have a temperature of 115°F., and given with the patient on the left side. Not more than six ounces of fluid should be thrown

France proposes to examine the 60,000 Levantines who pass through her yearly to embark at Havre for America.

For pneumonia Janeway favored a combination of digitalis, strychnine and glonoin (*Med. Record*); pretty close to veratrine.

into the rectum, since over-distention of the bowel will defeat the purpose of the injection by causing an expulsion of the fluid.

Hypodermoclysis is useless in severe shock, and the same obtains for the usual drugs given subcutaneously. Senn recommends the hypodermic use of sterile camphorated oil; one syringe-full every twenty or thirty minutes until the patient reacts. Inhalation of oxygen, counterirritation, and autotransfusion are occasionally practised.

NAUSEA AND VOMITING.

Nausea and vomiting may come on immediately after the operation and persist for hours or even days. Vomiting from chloroform is more difficult to control than vomiting from ether and anesthol. Teaspoonful doses of hot water should be given at frequent intervals, and if the vomiting continues, a draught of hot water, to which is added one dram of sodium bicarbonate, may relieve the condition by washing out the mucus from the stomach. Gastric lavage will not only check obstinate vomiting, but will many times prevent its occurrence if used immediately following the patient's return from the operating room. Should the vomiting continue, and be independent of peritonitis, drop doses of a four per cent solution of cocaine, or three drop doses of the tincture of nux vomica, can be administered every hour. Inhalations of oxygen and the fumes of hot vinegar will not infrequently quiet the stomach. Neither are of value when the vomiting is caused by chloroform or anesthol. A mustard plaster to the epigastrium, small pieces of cracked ice, hot coffee, iced champagne per mouth, or chloral per rectum, can be tried. The removal of vaginal packing will, many times, make for the patient a retentive stomach, and bring about a remarkable physical improvement.

THIRST.

Thirst is one of the earliest and most distressing symptoms complained of. It is not necessarily due to a loss of blood, but to a loss of serum that follows an invasion of the abdominal and peritoneal membrane. Post-operative thirst is best controlled by the use of six ounces of salt solution per rectum every two hours. It is better to limit the quantity of fluids taken per mouth for the first few hours to small quantities of hot water, one-half ounce every hour. "Ice should not be given; it increases thirst, and the patient will not be content without a piece constantly in her mouth." When the patient does well she can have a cup of tea on the morning following the operation; small quantities of water, albumen-lemonade and ice; on the second day light diet, and by the end of the week a generous diet. Should the patient require rectal alimentation the bowel must be flushed twice daily with a normal salt solution. Intolerable thirst is never complained of, when, in clean cases, the abdomen is filled with salt solution at the cessation of the operation.

PAIN.

It is the surgeon's duty to encourage the patient to bear a certain amount of pain, but there is that limit of which forbearance ceases to be a virtue. If the patient complains bitterly of pain, looks distressed, or is very restless, from one to two grains of codeine should be given hypodermatically, and, if necessary, it can be repeated every two hours. The evil that results from the slight tendency which codeine has for decreasing peristalsis and favoring tympany, does not compare with the rest and physical improvement which follows the control of the intolerable pain. Hypodermic medica-

There is the widest difference in the world between inhibiting the action of a microorganism and killing it.—A. H. Smith, *Med. Record.*

Cure must be effected in the body's way and by the body's mechanism and not in any other fashion. —Prudden, *Med. Record.*

tion requires cleanliness. Abscesses not infrequently follow a lack of antisepsis on the part of the nurse; the syringe is septic, the patient's skin unprepared, and the solution injected non-sterilized. I have had no experience with the use of anodynes per rectum, and consider chloral too dangerous for use in my own practice.

"An attentive nurse can add comfort by passing her hands under the patient so that cool air reaches the heated back; by changing her frequently from one side of the bed to the other, and by keeping the clothing under her smooth and dry. The mattress can be raised and a cushion so placed that the change of posture will greatly rest the patient's back."—Montgomery. When the patient reacts from the anesthetic she should not be worried by excessive heat from the hot-water bags.

The laparotomy bandage is invariably ajusted too tight at the time of its primary application, and should be loosened, providing the patient complains of pain, after the return to bed. It is certainly a good practice to permit the patient to assume that position which is most comfortable. Unless there are contraindications, such as postural drainage, gall-bladder operations, or drainage-tubes, the patient may, with impunity, be turned upon her side immediately after regaining consciousness.

CATHETERIZATION OF THE PATIENT.

If the patient is unable to void her urine she should be catheterized twelve hours after the operation, and before if she complains of distress. It is criminal to catheterize a patient without exposing the vulva. The instrument should be of glass and made aseptic by boiling. Strict antisepsis must be observed. The legs should be well separated, the urinary orifice exposed, and the parts cleansed with a hot boric acid solution before inserting the catheter. This is the prophylactic therapy for the distressing cystitis which so frequently follows uncleanliness and "the drawing of the patient's urine under cover." Irrigations of the bladder with a hot boric acid solution, the internal administration of urotropin or balsam of copaiba, will yield a slow but curative effect in the usual case of post-operative cystitis.

TYMPANITES.

This is many times an early and distressing symptom, and occasionally demands treatment long before it is possible to administer a cathartic. Gastric lavage is indicated when the distention results from decomposing food-stuff. When it follows a passive collection of gas in the intestines, prompt relief can invariably be obtained by injecting two ounces of olive oil and one ounce of glycerin just within the sphincter. If this fails to cause an expulsion of the flatus, an enema containing twenty drops of turpentine, one ounce each of Epsom salt, glycerin and water should be given. Eserine salicylate is recommended for the paralysis incident to the trauma of operation. The rectal tube has a very limited sphere of usefulness for the relief of tympany, and its frequent introduction causes unnecessary traumatism.

THE POST-OPERATIVE CATHARTIC.

A saline should be given at the end of thirty-six or forty-eight hours, for at this time the stomach is usually retentive. If the intestinal tract has been thoroughly emptied, and in the absence of post-operative tympany, there is nothing gained by an early bowel movement. Sulphate of magnesium is the drug of choice, and is best given in black coffee, in two dram doses, every hour until an ounce or more is taken. Citrate of magnesium and several of the popular purgative waters are better borne by some patients. When it is impossible

If the good Lord will forgive me I will never again pack the chest of a pneumonia patient with ice.—Alonzo Clark (lost 8 cases).

To have a superfluous amount of body is a calamity. You can't check it at the parcel stand —*Philistine*.

to administer a saline, the solid extract of cascara can be given per mouth, and the bowels made to move by recourse to a compound enema. Purgatives of a more drastic nature are occasionally indicated. I have no use for the preliminary mercurial, and have yet to see a case in which I thought it quieted the stomach, that it was indicated, or enhanced the patient's chance for an early bowel movement.

THE VAGINAL DOUCHE.

The vaginal douche can be given after the first twenty-four or forty-eight hours. A 1 to 1000 solution of permanganate is a valuable deodorant and is efficient for cleansing the parts. When plastic work has been made upon the vagina, no douche should be given until after the third day, since the fluids injected will interfere with the processes necessary for the repair of the wound.

INSPECTION OF THE INCISION.

"In the presence of an aseptic wound there is nothing to do but to restrain the curiosity. When there is no febrile reaction (after the third day), no pain in the wound, no pulsation at the seat of operation, it is safe to leave the wound alone until the eighth day."—Reed.

A rise of temperature, pain and tenderness along the line of incision, soiling or disarrangement of the dressing, are indications for the inspection of the wound.

REMOVAL OF THE SUTURES.

In an ordinary case the through and through silkworm gut sutures used for approximating the skin and subcutaneous structures can be removed on the seventh or eighth day. This obtains when the abdominal wall is closed with absorbable suture material. Silver or iron wire used for closing the aponeurosis can be removed with safety at the end of two weeks. When removing sutures, the same regard for asepsis should be practised as that observed at the time of operating. The hands should be thoroughly scrubbed, the dressing removed, the abdomen covered with sterilized towels, and the incision cleansed with a hot solution of bichloride, before their removal is attempted.

Sutures of silkworm gut are easily removed, provided their ends are left long and tied into a knot. Each suture is lifted from its bed, and after being well retracted is cut through the part previously buried. When the last sutures are cut, gentle pressure should be exerted on either side of the incision, when with a little traction on the knot the entire row of sutures can be removed, without pain. The incision is covered with an aseptic dressing which is held *in situ* with two strips of zinc oxide adhesive. This dressing can be removed at the time the patient leaves the hospital, and the tender incision supported with two broad strips of adhesive plaster over which a roller bandage should be adjusted.

THE DRESSING OF AN INFECTED INCISION.

An infected incision should be dressed by one possessed with an aseptic conscience. If there are indications of pus, or should the sutures be too tight or cutting, one or more can be removed and the tension thus relieved. An infected abdominal incision is far more satisfactory to treat when the wound is closed with interrupted sutures of silkworm gut. In the presence of an infection, one or two sutures should be removed, and the pocket of pus evacuated by introducing an aseptic hemostat through the line of incision. The opening should be large enough to give free vent to the pus. It is a bad practice to pack the wound with gauze or introduce a tube for drainage, and a pernicious practice to use undue pressure and occasion intolerable pain in a vain attempt to express the pus. The injection

There is always a fight between a man and his body; if he does not dominate it, it will dominate him.—*Philistine.*

Do not lose faith in humanity; there are 80,000,000 people in America who never played you a single nasty trick.—*Philistine.*

of antiseptic fluids is a harmful habit and should be comdemned. Drainage is the requisite, and with the redressing of the incision twice daily, the wound can be kept clean, granulations stimulated by the local use of balsam of Peru, and, at a later date, the gaping edges approximated with strips of zinc oxide adhesive.

WHEN PERMITTED TO GET UP.

It is as unnecessary as it is wrong to keep a clean, uncomplicated abdominal section in the dorsal decubitus for a period of eighteen days to four weeks. Patients become bed-ridden and do best when permitted to get up. An infected incision protracts convalescence, and when drainage is used the abscess cavity will drain far better, if, after the third or fourth day, the patient is propped up in bed. Herniotomies should be kept in bed for two weeks, but in clean abdominal cases, and following the gridiron operation for appendicitis, it is perfectly safe to permit the patient (with the assistance of a nurse) to get up and use the commode after the first twelve hours; to be up in a chair on the third or fourth day; and to walk at the end of a week.

THE ABDOMINAL BANDAGE.

"The permanent use of the abdominal bandage is usually unnecessary when the abdominal wall is closed in layers and heals without infection. If the belly wall is lax the binder may add to the patient's comfort. A ventral hernia follows infections and the use of drainage tubes, and rarely develops later than six months after laparotomy."—J. Von Mikulicz.

COMPLICATIONS.

Renal, cardiac, and respiratory complications necessarily protract convalescence, and demand medication. Peritonitis is invariably fatal, but requires supportive treatment, gastric lavage, and the use of ice or hot applications to the abdomen. Secondary hemorrhage, ileus, thrombosis and embolism are serious post-operative complications.

Columbus, Ohio.

PROLAPSE OF THE BOWEL IN CHILDREN DUE TO SUMMER DIARRHEA.

BY R. D. MASON, M. D.
Professor of Rectal Surgery in Creighton Medical College, Surgeon to St. Joseph's Hospital.

DURING the hottest part of the year, July, August, and September, many children suffer from the various forms of summer diarrhea and the constant tenesmus produced in many instances forces the lower end of the rectum through the sphincter muscle, causing a prolapse and often it cannot be returned except by the physician. In these cases it is only the mucous membrane that protrudes, the muscular and other coats remaining in their proper place.

This condition almost invariably comes on suddenly and when the mother or nurse finds a large, red, angry-looking mass protruding from the child's buttocks they are likely to be very much frightened. The doctor is at once sent for and often in country practice several hours have passed before his arrival. By this time the protruded mass has become dry and swollen, and can be returned with difficulty, even by the physician. A young doctor who has never seen a case of this kind is often at a loss to know what to do. The struggles and cries of the child tend to make reduction

Early recruits to the civil war armies sang:—'I've ate my peck of dirt; Lord, must I die?" *A recol ection from childhood.*

I go out upon the great Unknown, without an unkind thought or feeling toward any living creature.—R. M. Swearingen, *Texas, M. J.*

very difficult and the tumor is inclined to be forced further out rather than to return to its proper place.

I well remember the first case of this kind that ever came under my care, and the embarrassing position I found myself in after having driven seven miles in the country, confronted by a 6-year old boy with three or four inches of the bowel protruding, and, because of its having been out for several hours, dry, swollen, and painful. The little fellow cried and kicked with a vengeance whenever I touched him. Several of the neighbors had gathered in to see what the new doctor would do. I found myself confronted with a condition and not a theory, and as there was no time to go and read up, immediate action was necessary. As this was twenty years ago, before the subject of rectal diseases had received much attention I had never seen or even heard of such a case before. I succeeded in getting it back, but will omit details and describe more correct up-to-date methods.

It is always better to reduce the parts as soon as possible rather than to wait and endeavor to reduce the engorgement by using cold applications, as is sometimes recommended. Wash the part with clear warm water if it is covered with dried mucus and dirt, then cover it with any good lubricant and grasp with the fingers surrounding it on all sides and make taxis as one would do in reducing an inguinal hernia. It is important to take advantage of gravity by inverting the child. The part that came out last should go back first, and if this point is not remembered the result may be failure. Another good way is to take a smooth stick, like a lead pencil, oil it well and wrap it with dry gauze and insert it gently into the anal opening. Being rough it carries the part that should be inserted first up with it and by making pressure around the mass on the outside it will often slip back with ease. It is now only necessary to pull the stick out of the gauze, leaving the latter in, and the reduction is complete. The small amount of gauze required will do no harm if left in the bowel, as it will come away with the next movement.

Should all of these methods fail it will be necessary to give chloroform to overcome the spasm of the sphincter muscles which will nearly always allow reduction to take place without much difficulty.

After having reduced the prolapse the question arises as to the proper treatment to pursue to prevent a return of the malady. This is best accomplished by adopting such measures as will prevent straining and reduce the congested condition of the lower end of the bowel. The child should be kept in bed and not allowed to get up when emptying the bowel or bladder. When it seems necessary for a bowel-movement to occur, an enema, preferably of oil or cold water, should be given, and as soon as it has passed away if the prolapse seems inclined to recur a small injection of some astringent solution as alum water, solution of tannin, fluid hydrastis, etc., may be used, and a cotton pad placed over the anus and held in place by a broad adhesive plaster which encircles both buttocks and firmly holds them together. This should be kept on for some time and when other bowel-movements are necessary the adhesive strap may be cut in the center, and holes punched in the ends so that it may be drawn together with a lace as is done with shoes.

While the prolapse is being cared for, the causes which brought it about should be looked after. A very light, easily digested, diet and such intestinal astringent and antiseptic medicines should be given as is thought best. In nearly all cases some

Daniel of the *Texas M. J.* advises the medical society of that state to secede from the A. M. A. because negroes are members of the latter.

This year 67 Rhodes scholars joined the 79 already at Oxford. Ten failed at entrance exams. Socially they are a success.

opiate will be required to overcome the restlessness of the child and prevent straining. Paregoric is the best for this purpose and should be given in such quantities as is thought best.

In a majority of cases the above measures will be all that is necessary to bring about a cure but occasionally a case will occur where more radical measures are required. There are several operations that may be done, but as this is written for the benefit of the family physician, the easiest and most satisfactory one will be described. This consists in giving an anesthetic and injecting under the mucous membrane at three or four points about the anal opening some carbolic preparation which will set up sufficient inflammatory action to establish adhesions between the mucous and muscular coats of the bowel. We aim to accomplish the same thing that the hernia specialists do when they undertake to set up adhesive inflammation in the inguinal canal, but in the case under consideration it is easy to see exactly where the medicine is being deposited, while in the hernia case it is done more or less blindly. I believe the best formula is one which combines carbolic with a strong astringent, as follows:

Tannin	grs. 20
Water	drs. 2
Carbolic acid	drs. 2
Glycerin	drs. 4

M. Sig: Inject four or five drops under the mucous membrane in three or four places around the anus about two inches above the mucocutaneous junction.

After this has been done pack the rectum with gauze through the center of which runs a rubber drainage-tube to allow the escape of gas.

The child should be kept more or less under the influence of opiates and the bowels not allowed to move for a week and the packing left in for this time, unless there is some good reason for removing it, such as a high elevation of temperature. Should this occur the packing should be removed and the rectum thoroughly flushed with a strong boric acid solution used through a double current irrigator, so no large amount of water will be left in the bowel to cause straining.

A light concentrated diet should be kept up for some time and the patient given a small enema before each stool, and taken off the commode as soon as the stool has passed.

Parents should be taught the danger of allowing these cases to go without proper treatment, as they nearly always result in complete prolapse later in life and require very much more severe measures to bring about a cure than would be necessary if treated early.

Omaha, Neb.

MEDICAL TREATMENT OF APPENDICITIS.

BY EMORY LANPHEAR, M. D., PH. D., LL. D.

Formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of Surgery in the St. Louis College of Physicians and Surgeons.

IT may seem strange, to some, that a surgeon who has removed many hundreds of appendices should write a paper on the *medical* treatment of appendicitis. But—there are some people who will not consent to operative treatment "as soon as the diagnosis is made;" there are some doctors who will not operate, them-

Periods of lower resistance occur frequently in a large majority of individuals, obscuring diagnosis.—*So. Med. and Surg.*

Growth and achievement are proportionate in a large measure to the intelligent reading done systematically day by day.—*So. Med. and Surg.*

selves, yet who are so situated that a competent surgeon can not be gotten to the charity patient far away from city or town. What is to be done in such cases?

First, Bowel Evacuation.—Long experience has convinced me that thorough purgation does no harm, Ochsner and others to the contrary notwithstanding; indeed it does much good if purgation can be secured by some agent which will not produce vomiting. Therefore, to patients who are not to be subjected to immediate operation I give a good dose of Abbott's saline laxative, repeated in four hours, if the results are not satisfactory. A small enema is sometimes useful; but care must be taken not to distend the colon. Late in the disease olive oil is very useful.

Second, Pain.—For the control of pain sulphate of codeine may be used, guardedly; any opiate produces a tendency to nausea—and vomiting is one of the most distressing (and sometimes dangerous) symptoms of the disease. Four decigrams (one-half grain) of phosphate of codeine may be given hypodermically at any time when the pain is intense; or the same quantity of the sulphate may be left in pill form to be given every 3 to 6 hours by mouth as needed—as little as possible being given. Morphine costs less, but may kill the patient; codeine is cheaper than a coffin.

Third, Fever.—In uncomplicated appendicitis the temperature seldom runs above 100 or 101° F.; hence "fever medicine" is not often required. Whenever the temperature goes above 102° F. a small dose of acetanilid will cause it to drop to about normal for some hours and relieves the pain and nervousness; one-half gram (7 1-2 grains) may be given in one dose, if there is no decided weakness of the heart. Aconitine may be given, if preferred, until the temperature and pulse drop to the required degree.

Fourth, Vomiting.—This is frequently an early, persistent and aggravating feature of appendicitis of severe type, and is indicative of on-coming sepsis; when black vomit appears the patient generally dies of acute sepsis (commonly called "diffuse peritonitis"). For its prevention three things are necessary: (a) cleaning out the intestinal canal; (b) perfect quietude; (c) abstinence from food and drink. For the first forty-eight hours it is best to withhold all food by the stomach (rectal feeding may be instituted every six hours with patients extremely weak) and give as little water as possible. The pleading for "a little ice in the mouth" must not be heeded—if permitted it surely will lead to vomiting. After the first two days, if vomiting does not occur, the amount of water by stomach may be increased and liquid diet carefully begun. When vomiting persists food must be abandoned and water by mouth refused—thirst being overcome by enemas of not more than six ounces; if it becomes alarming one milligram (one-sixtieth of a grain) of salicylate of eserine may be given hypodermically every two hours, four times. An ox-gall enema will help to turn the peristaltic wave downward.

Fifth, Distention.—To prevent this the saline laxative may be given every morning, guardedly; there need be no hesitancy on account of possible leakage through a perforation, peristalsis alone will never force feces through a hole in the appendix; and it does not (as I positively know) prevent the formation of adhesions, the protective barrier against general infection. But when distention is great the ice-bag may be used—or hot fomentations, if they give more comfort to the patient, as is frequently the case. Local use of Credé ointment, mud-glycerin poultices, etc., does no good except to make the people think "there's somethin' doin'";

Torpid Liver: The condition could be correctly described by saying that decomposition has replaced digestion.—Birchmore, *So. Med. and Surg.*

Torpid Liver: Three poisons are developed, a powerful narcotic, a nervous irritant, one causing vascular spasm.—Birchmore, *So. Med. and Surg.*

but a few drops of turpentine rubbed up in olive oil and thrown up in the colon sometimes does good; and if the distention be due to gas in the colon an alum enema is of great service.

Sixth, Tumor.—In a large proportion of cases a mass can be felt in the region of the appendix. It means perforation of the wall of the appendix—the presence of pus—and is a positive indication for abdominal section. If radical operation is refused and the abscess is inclined to open, externally poultices may be applied to assist and simple incision made as soon as possible.

A large proportion of cases, which ought to be subjected to operative treatment, may thus be taken through the attack safely; but it is the duty of every doctor to explain the dangers to patient and friends, and to insist upon operative treatment whenever especially indicated (as the formation of a mass easily felt in the cecal region) if the services of a fairly competent operator can be secured.

"A WORD" REGARDING SURGICAL CONSERVATISM.

BY L. F. SCHMAUSS, M. D.

WHEN theories and opinions concerning phases of medical questions are advanced that do not directly or even indirectly influence the course of any disease or jeopardize the safety of the patient—for instance whether or not acute articular rheumatism is a microbic disease, whether or not cancer is of a parasitic origin, etc.—little or no concern need be taken. But when our remarks touch upon a complicated and dangerous condition like appendicitis, regarding the treatment of which (its various manifestations) still considerable doubt and differences of opinion exist, where the welfare and life of so many are at stake, then such expressed and especially published opinions become a matter of the gravest concern and notice should be taken.

I fully agree with the sentiment and with the picture presented by Dr. C. P. Thomas —page 191, February CLINIC. Instances like those given could be multiplied indefinitely. Conservatism in medicine and surgery is so often like the "penny wise" but "pound foolish" practices of every day life. In that case it is to a certain extent excusable, but when practised as an excuse for carelessness or inactivity, or as a cloak to cover design and dishonesty, then it cannot be too severely condemned. On the other hand, true conservatism, intelligently applied, following clear, timely and particularly well-established lines of procedures, is a credit to the physician and surgeon and a boon to suffering humanity.

I cannot agree with the position which Dr. F. S. Lewis takes in the May number of CLINICAL MEDICINE, page 65c, and I am constrained to write these lines because I fully realize the importance of the subject (appendicitis) alluded to in the paper, and am fully aware of the danger of his practice —to treat all cases "medicinally" or what he would term "conservatively." For one who has gone "through the mill," who has treated appendicitis not only "medicinally" but also surgically in its various manifestations, it is not only difficult to decide which is the most "conservative" method to follow, which yields the best, the quickest, the most certain and most satisfactory results.

Circumstances, of course, will often mod-

Torpid Liver: Stimulate if the disease is due not to true functional insufficiency but to slothfulness. Birchmore, *So. Med. and Surg.*

Torpid Liver: Podophyllin and leptandrin suggest themselves but the usual dosage is excessive; try gr. 1-50.—Birchmore.

ify or change our line of procedure. A man may be justified to treat all cases of appendicitis medicinally in Alaska, but not so in Seattle (where good facilities and competent surgeons are available), nor in Port Angeles, only eighty-five miles from Seattle. The doctor states that he has treated twelve consecutive cases of appendicitis without a death, that the patients are all alive, that only one had a recurrence and that only one had a serious complication (abscess of right pleural cavity) and asks: "Which of the cases should have been treated surgically, and would I be justified in changing my method?"

I would say that his results mean nothing except that although all those patients are alive today, some are undoubtedly not enjoying perfect health and may have to submit to an operation to obtain more complete relief; that although only one had a recurrence, more are likely to have, since recurrence may develop after weeks, months or years (I have seen them in three, seven and ten years); that although only one had a serious complication, all were subjected to the same danger, not mentioning the prolonged period of uncertainty.

But no one will appreciate the latter, will realize the difference between the medicinal (so-called conservative) and the surgical (really conservative) treatment of this treacherous and dangerous disease, who has not employed both methods in many cases.

We are often more fortunate than wise. The fact remains that many competent surgeons have operated upon hundreds of cases without a death, without a complication, without a recurrence and with perfect results. The mortality, the complications, and incomplete results are, as a rule, recruited from the neglected or mismanaged cases, either on the part of the patient or the attending physician, or are the result of inexperience or incompetency on the part of the operator. The time will come when it will be recognized that appendicitis, when complicated, is a most serious condition and that under ordinary circumstances no one is justified to operate for it who has not had the necessary surgical training and experience.

To the question, *What cases should be treated surgically*? I would make the following reply, it being understood that good facilities and a competent surgeon are available:

First, all cases of chronic appendicitis. Many of these cases are due, not to inherent inflammation, but to an abnormally long appendix, to adhesions, to stricture, or to foreign bodies within the lumen, all of which are not influenced by any line of medical treatment. More of these cases will be operated upon in the future than in the past. I operated on three cases last winter, none of which went through any definite acute attack. In doing so I did "conservative surgery" because I not only relieved them from their dyspeptic symptoms, etc., but in removing an abnormal condition I saved them from future serious trouble.

Second, all cases having had two or more acute attacks; in fact, no case should be allowed to pass *through* a second attack, but should be operated upon at once, at the beginning of the second attack. In this connection it must be remembered that many previous attacks are overlooked unless a close history is obtained; that many have had ill-defined or indefinite attacks before a physician is consulted. Furthermore, the severity of the previous trouble will stand in no relation to the severity or course of the subsequent attack. In fact, some of my worst cases were such which had only slight, indefinite previous trouble. Therefore, one should not be deceived.

Torpid Liver: Euonymin is wonderfully effective sometimes. Its power dates back to the traditions of war paints.—Birchmore.

Torpid Liver: A friend swears that "1-6 grain of juglandin with each meal has done the business with me."—Birchmore.

Third, all severe cases should be operated upon at once. No case of developing peritonitis should be allowed to proceed to the formation of sepsis, and no case of perityphlitis to that of perityphlitic abscess. A "stitch in time" saves at least nine here as elsewhere, and is in the line of conservatism. In this connection I wish to again emphasize the fact that not every typhlitic or perityphlitic swelling means an abscess. From my own experience and observation I maintain that a case of perityphlitis, no matter how acute, can be handled more readily and more successfully before it becomes securely "walled off," before abscess-formation has taken place. Besides, the patient (as well as the attending physician and relatives), is saved a most trying period of anxiety and uncertainty, an element of grave danger and a prolonged and trying convalescence.

Fourth, cases which have gone on to abscess-formation should be operated upon (the pus evacuated and drained) as soon as possible. Why? First, because any accumulation of pus anywhere (and this is particularly true of the abdominal cavity) is a *menace to the life* of the patient. I know of two cases of felon and one of a hazelnut-sized abscess of the neck, which were followed by pyemia and death. Second, because of the varied and grave *complications* which are apt to jeopardize the safety and life of the patient. Besides metastatic pleurisy or pleuritic abscess mentioned by the doctor, the following may arise *at any time* in connection with appendicitis: Metastatic pneumonia and endocarditis, thrombophlebitis, embolism, pyemia, intestinal obstruction, abscess of the liver, peritonitis, sepsis, etc. Any of these conditions when recognized as to their origin, will not fail to make a lasting impression on the careful observer. I know of one case where the suppuration around the appendix and cecum had practically subsided when a purulent phlebitis of the portal vein developed, followed by death. Another, where a pulmonary abscess developed, but finally followed by recovery. Recently I was called to a case of appendiceal abscess which was incised and drained, followed by a metastatic pneumonia. The patient recovered and is now in excellent health, but no one knows for how long, the condition of the appendix being unknown. I have repeatedly witnessed pleurisy, pneumonia, and endocarditis (examine the heart), follow light as well as severe attacks of appendicitis. Third, because not all abscesses around the cecum will rupture into the latter; the pus may find its way into the free peritoneal cavity, into the bladder, right pleura, etc. Again there may be so much thickening that rupture will not take place and unless nature is assisted the patient will perish from a protracted septic condition. I have operated on two such cases—of six and eight weeks standing.

No competent physician (at least no surgeon) will allow a felon, a peritonsillar abscess or an abscess of the breast, or even an ordinary boil to open spontaneously, but will freely incise and drain as soon as he can demonstrate a collection of pus. The same principle applies with even greater force to a perityphlitic abscess, because of the greater danger to the life of the patient.

But, it may be replied, it is a rather serious matter to open such an abscess. True, and it is therefore not everybody's business to go through the abdominal wall. However, in the hands of competent and experienced men, the danger has been reduced to a minimum and it is infinitely less than to allow the patient to go on for two to three weeks with the expectation that spontaneous evacuation, as the abscess into the intestine, followed by recovery will take place. To

Torpid Liver: Iridin, gr. 1-59, at meals will convince a striking liver of the unwisdom of its ways with admirable certainty.— Birchmore.

Torpid Liver: Iridin seems specially of use in the case of those who have lived too rapidly - Birchmore, *South. Med. and Surg.*

follow the latter plan is an exceedingly risky and untenable procedure, the gravity of which is only realized and appreciated by those who have treated large numbers of appendicitis both "conservatively" and "radically" and in its various stages.

From what has been said it will be readily surmised how I will answer the doctor's second query: "Would he be justified to change his method in the face of the results obtained?" I would reply with a decided *yes*. In the light of the present-day knowledge and experience, a physician is no more justified to let a case of appendicitis proper go on to the development of general peritonitis, or to the formation of a perityphlitic abscess by treating it expectantly, than to treat a punctured wound (for instance caused by a rusty nail) similarly (by rest, hot or cold applications, medicines internally, etc.) Nor would one be justified to do so if tetanus—that horrible disease—would only occur once in a hundred of such instances. By proper treatment there cannot only this one death be prevented, but in at least 90 per cent of cases, all local and hence general infection and thereby the patient saved untold suffering, anxiety, loss of time, and money. This is conservatism and the same (timely interference—removal of the offending body) applies with even greater emphasis to appendicitis. Any physician, who is consulted about a case of chronic appendicitis or is called to a case suffering from a second (or more) acute attack (and we are seldom called to the primary attacks), or, from any serious attack, or first sees the patient when an abscess has already developed, or a peritonitis begun to develop, and who, under those circumstances, does not urge, or at least advise, operation without unnecessary delay after he has had his attention drawn to the importance and gravity of the situation, is not doing his duty and should be held responsible for the resulting invalidism or death of the patient.

In closing, I wish to state that the treatment as employed by the doctor is an excellent one in its place (where operation is to be postponed or is impracticable). It will relieve and tide over most cases, but is neither the best nor the safest in all cases. It has been tried and found wanting long before we have learned to more successfully treat appendicitis by timely operation.

The three essentials to good surgery (how and when to operate and how to take care of the patient afterward) as emphasized by the doctor, I would modify as follows: Good Surgery in any given case demands: First, an at least approximately correct diagnosis; second, a decision whether or not to operate; third, to know when to operate; fourth, the courage and ability to operate, and fifth, to know how to successfully take care of the patient afterward. When any of these essentials are wanting the deficiency must be overcome through consultation or assistance, or the case referred to those better qualified through long training and experience. To do otherwise is neither doing justice to the patient, or to ourselves, nor to our profession, or the general public.

Mankato, Minnesota.

SURGICAL NOTES

PERFORATION OF STOMACH AND DUODENUM.

Medical Progress describes three cases in the practice of Croce which tend to show the effectiveness of abdominal section in intestinal or gastric perforation, if the operation can be performed within twelve hours after the accident. The first was that of a

Livers almost indifferent to the stimulation of "yellow rice and stuffed peppers" are the special field of iridin.—Birchmore.

There are plenty of old men who are no better than old fools. We have the power to make or to mar ourselves.—Felix Adler.

gunshot wound of the stomach, inflicted with suicidal intent. The patient was operated on very soon afterward, and a perforation of the anterior and posterior wall of the stomach repaired by suture. The region of the injury was sponged off and drained, most of the incision being sutured. A prompt and uncomplicated recovery followed. The second patient was an old gentleman who for years had suffered from gastric ulcer. One morning on the way to his office, he suddenly experienced acute pain in the epigastrium, and as he had been warned by his physician of the possibillty of this accident, he at once betook himself to a hospital. The abdomen was opened within two hours and was found full of stomach contents. The ulcer was sutured, the abdomen washed out and the wound partly closed, a drain being carried down to the gastric sutures. Recovery was uneventful. The third case was a doubtful one and did not come to operation until nearly twelve hours had elapsed. General symptoms of perforative peritonitis were present, and on opening the abdomen the source was seen to be a ruptured duodenal ulcer. The abdomen was full of purulent exudate and it required thirty liters of salt solution to cleanse it. Extensive iodoform gauze drains were inserted and the wound left open except for two silver wire sutures. In spite of pulmonary and other complications, the patient was cured.

THE FUTURE OF SURGERY.

Dr. A. C. Powers, of Denver, in his address before the American Medical Association said: Prophylatic surgery may be the surgery of the future; serum therapy and other therapy may narrow the operative field; but whatever course surgery may take, its direction will be one of advance, for it is traditional with and inherent in our art and our workers to press steadily forward to the end that the lives of men may be made longer and happier. This our heritage.

ALCOHOL AND CANCER.

Because he found, of 114 patients suffering from cancer, about one-half used whisky, beer or gin, Dr. R. H. Fox concludes that alcohol must be a cause of cancer! How about the many thousands of women who die of uterine or breast cancer; would Dr. Fox argue that 50 per cent of them are addicted to the alcohol habit? The medical profession as a whole is guilty of drawing "conclusions" from an experience of one case.

LAWSUIT FOR AN ACCIDENT.

A lawsuit for heavy damages has been instituted against Dr. Herman J. Boldt, Professor of Gynecology in the New York Post-Graduate Medical School—one of the best known and most skilful abdominal surgeons of New York. The allegation is that he "sewed up a woman" leaving a piece of gauze in the belly (or as the *Commercial and Financial World* puts it, "sewed up in her body a piece of towel or rag") and that she suffered from this a long time. This is an accident likely to occur to any surgeon, especially in suppurative appendicitis. No piece of gauze should ever be left, even for a moment within the abdomen or pelvis without a string or hemostat attachment.

PECULIAR BRAIN TUMOR.

At St. Mary's Infirmary Drs. W. W. Graves and R. F. Amyx, of St. Louis, have been treating a tumor of the brain with peculiar symptoms; the most strange being that when the patient stands there is no

A child's gift pleases because of the loving spirit in its little loving heart though the gift be worthless. —Adler.

Perhaps the greatest means of giving refinement and beauty spiritual to one's life is to do with zeal the little we can do.—Adler.

trouble with the tongue, but upon lying down paralysis of the hypoglossus appears. Another unusual feature is that while there is no paralysis of the left arm there is complete loss of muscle-sense, and without anesthesia. Cerebral vomiting never was prominent. At operation a cyst, containing about two ounces, was found posterior to the Rolandic fissure, near the arm-center. The patient is improving.

BRAIN TUMORS.

The report, from Dr. E. A. Codman, of work in cerebral surgery at the Massachusetts General Hospital is rather discouraging to advocates of radical work on the brain. The record of cases treated at the hospital shows that of all brain tumors very few are removable, and that of these the greater number arise from the dura. Rather surprising are the facts, that those really removable, as shown by autopsy, are the most difficult cases to handle during life, and that in the hands of the surgeons, who operated, not one of the 28 cases has been successful as a radical procedure. A considerable percentage of those improved was benefited only by the relief of pressure; the failure to improve the others was due, it appears, to strangulation of the motor cortex through the trephine hole or to damage done to the brain tissue.

DEFECTIVE HAND CLEANING.

In attempting to secure asepsis the hands for operation or dressing of wounds the surgeon is apt to inadequately scrub two parts of the hands: the center of the palm and the spaces between the fingers near their base. Of course the chief danger is in the dirt under the finger-nails and around the roots of the nails, but the other two points should always be remembered.

GYNECOLOGICAL NOTES

AMPUTATION OF THE CERVIX.

Amputation of the cervix was an operation urgently recommended by the older gynecologists who knew not the safety and efficacy of vaginal hysterectomy. It is no longer practised for cancer, as the disease when discovered is generally too far advanced to hope for cure by any except the most radical extirpation compatible with safety. If the disease has reached a stage where cure is not to be hoped for, far better than amputation is thorough curettage and burning with Paquelin cautery.

TRACTION ON ROUND LIGAMENTS.

When shortening the round ligaments says *American Journal of Surgery*, it is better to pull on them with fingers instead of instruments; a surer hold is given and one can gauge the proper force to employ more readily; and there is less likelihood of the ligaments tearing.

SARCOMA OF THE OVARY.

This is a rare form of pelvic tumor, generally affecting both ovaries. It may be either spindle-celled or round-celled. It grows with great rapidity being more malignant than carcinoma. Fibrosarcoma is more frequent; and some rapidly growing papillomatous cysts are those undergoing sarcomatous changes in their stroma. Secondary sarcoma of lung, peritoneum, liver, etc., soon appears. Under the name "oophoroma." Bland Sutton describes that form of

I admire the scholar in the prime of life whose books are in every library, whose name is on every tongue.—Adler.

I revere more the spent scholar who uses the little daylight that remains to add some last slight contribution to knowledge.—Adler.

sarcoma found in the ovaries of fetuses and young children—which differ from those of adults "in repeating the embryonic characters of the connective tissue of the fetal ovary, and cell elements preponderate." (Roberts.) The only treatment consists of extirpation. Recurrence has followed in most cases or death from secondary sarcoma in other parts of the body.

FOR AMENORRHEA.

A prescription very highly recommended by the late Professor William Goodell, of the University of Pennsylvania, for women suffering from amenorrhea due to deprivation and depressing hygienic surrounding, was:

℞ Hydrarg. chloridi corros. .07 (gr. 1)
Liq. acidi arseniosi .... 3. (m. 45)
Tinct. ferri chloridi ....16. (dr. 4)
Acidi hydrochlor. dil ...16. (dr. 4)
Syr. zingiberis, q. s. ad. 200. (oz. 6)
M. Sig. Dessertspoonful in water after meals.

GONORRHEAL MENORRHAGIA.

It is well to remember that a woman who has had gonorrhea may be troubled by excessive menstruation, which may even amount to metrorrhagia. The most careful examination may reveal no other cause than the Neisser's infection. Currettage often does no good, complete cleaning out of the pelvis being the only certain cure for the obstinate cases. The fimbriated ends of the Fallopian tubes will be found closed invariably.

SYMPTOMS OF SEXUAL IRRITATION.

The intimate connection which exists between the sexual sphere and the skin is well shown in certain pathological conditions of the latter dependent upon the irritation of the former. The appearance of many pimples upon the face is a common accompaniment of the menstrual period with perhaps a majority of women; and the occurrence of persistent acne in girls at adolescence, when there is an unusual degree of sexual disturbance (masturbatory or otherwise) is well known. It dies out, usually, with the completion of adolescence or by the complete sexual gratification of married life; but it is apt to reappear at the time of the menopause—a period of sexual excitement with many women.

POST-OPERATIVE SHOCK.

After serious operation there is of necessity a period characterized by weak and rapid heart-action the result of hemorrhage and pain; but this should be transient. Martin says if in an adult the pulse remains above 144 for more than six hours the condition is distinctly dangerous. After twelve hours the prognosis is bad, and after more than twenty-four hours nearly but not quite hopeless. Whatever be the cause of this condition, its cure is dependent upon active stimulation supplemented by elimination. Therefore in addition to external heat hot rectal dilute injections are highly important. Of these coffee takes first rank, one pint of this at a temperature of 112 degrees to 116 degrees being thrown into the rectum. The stomach under these circumstances is non-absorbent and extremely prone to acute dilation. Therefore, unless dilated it should be left alone. In the latter case it should be emptied by the tube, but the danger of reflex cardiac inhibition is always present.

I admire the man and woman who with a smile on their faces persevere in doing their little best because they love the best.—Adler.

The Aged: We are still bound by every feeling of gratitude to remember the source out of which we have sprung.—Adler.

DEPARTMENT OF
DERMATOLOGY, VENEREAL AND SEXUAL DISEASES
WITH A REVIEW OF THE LITERATURE OF THE WORLD

In charge of Dr. WILLIAM J. ROBINSON.
Address all communications designed exclusively for this department to
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THE TREATMENT OF GONORRHEA AND ITS COMPLICATIONS.

INFORMAL CHATS WITH THE GENERAL PRACTICIAN.

BY WILLIAM J. ROBINSON, M. D.

I HAVE been requested by several readers to describe *my* method of treating gonorrhea in a brief article. Now, firstly, I have no method which I could call *my* method. And, secondly, the treatment of gonorrhea cannot be described in a brief article. You can no more treat gonorrhea by a set formula than you can pneumonia or typhoid fever.

There are so many points you must determine before you can enter upon the really successful treatment of gonorrhea. First of all, is it really a gonorrhea or is it only a catarrhal urethritis? Then is it a first attack, a second, a third, etc.? Is it in the acute or the declining stage? Then further is it a purely anterior urethritis, or has it affected the posterior urethra? Is it an acute attack or is it merely a recrudescence of an old non-cured, but dormant gonorrhea? Is the prostate involved also?

All these points must be determined in our mind before we can undertake the treatment of a case of gonorrheal urethritis with the hope of a successful issue. Of course, when a person comes to you complaining of a urethral discharge you can give him some copaiba and cubebs or some santal oil capsules and order him an injection of sulphate of zinc. But this does not mean treating gonorrhea scientifically and conscientiously. The corner druggist knows that much and in fact most of the patients nowadays know the names of the well-know blenorrhagics and urethral astringents. When they come to you, they have a right to a somewhat more individual treatment.

The very first thing to do when a patient comes to you complaining of a discharge is to determine whether the urethritis is of gonorrheal character or not, for the treatment of the two conditions differs very materially. To determine this point you must employ the microscope. Wash off the meatus with a little bichloride solution, squeeze out the pus lodging right within the meatus, wipe it off with a piece of cotton and throw it away. (This pus is liable to be contaminated with various other organisms.) Then introduce a sterilized platinum loop into the urethra, remove a little of the discharge, and spread a minute amount of it on a clean slide. (Do not make the customary mistake of putting the discharge on too thick.) Allow it to dry in the air, and holding the slide between the fingers, or in a slide holder, pass gently, twice or three times over a flame of an alcohol lamp or a Bunsen burner. But details

are important. If you keep the slide too close to the flame you "destroy" the pus. The slide (with the pus side up, of course) must be such a distance from the flame that the bare hand may support the flame at that distance. Passing over the flame "fixes" the preparation. When the preparation is "fixed," drop on it by the aid of a dropper 2 or 3 drops of sol. of methylene blue. In twenty to thirty seconds turn the slide so as to allow the excess of methylene blue to run off, and put the slide under running water. This removes the excess of the stain. Now allow the slide to dry in the air, or dry it with a piece of clean white blotting paper and examine it—without a cover—with the high power, 1-12 immersion. The coffee-bean gonococci arranged in pairs, and grouped in twos, fours, eights, etc., will be seen distinctly in the epithelial cells, in the pus cells, and also lying about free. There are more delicate staining methods than simple methylene blue, but they are more complicated and will hardly be utilized by the general practician.

Let us now assume that the gonococci have been positively demonstrated, that there has been a distinct incubation period, but that the patient has come to you at the first appearance of suspicious symptoms: a little redness and itching of the meatus, or perhaps just a small amount of serous discharge. In other words, he has come to you in the antepurulent, or serous stage of the disease. What are we to do? Shall we let the case take its regular course, or shall we endeavor to abort the disease? I am a believer in the possibility of aborting most diseases, and I believe that in *well-selected cases* we can, in a fairly large percentage of cases, abort gonorrhea, abort it in the real sense of the word. That is, we may by one, two, or three applications, irrigations, or instillations, destroy the gonococci which are still superficially located, so that no further symptoms develop, and the patient is cured. I do not believe with Engelbrecht that we can abort or cure 90 per cent of our cases in two days, but even if we can abort the disease in 30 to 40 per cent of cases, it is well worth trying.

The method is briefly as follows: Having assured ourselves that this is the patient's first attack, that the discharge is slight, and serous, and the inflammation is limited to the *anterior urethra* only, we order the patient to urinate, anesthetize the urethra (with cocaine, eucaine, or alypin) and swab it with a two per cent solution of protargol (or a 50 per cent solution of argyrol), paying special attention to the fossa navicularis. Instead of swabbing, we may inject one to two drams of one of the above solutions, retaining the fluid in the urethra for ten to fifteen minutes, by the means of a penis-clamp. The patient is also ordered to inject one dram of a one per cent solution of protargol twice a day.

He appears in the office the following day, and if the number of gonococci is appreciably diminished, the solution is reduced to one-half the strength of the previous day; if not, the same strength is used. If on the third, or latest, fourth day, gonococci are still present, it is useless to expect to "abort" the disease, and we must proceed with its regular treatment. I must not forget to mention that while trying to abort the disease, we must not neglect to administer internal remedies, which experience has shown to be so useful in all forms of urethritis and the exact formulas for which I will give presently.

We will now assume that a patient comes to you with an acute, fully-de-

With unity and concerted action, charlatanism would be submerged and the medical profession command admiration and homage.—W. L. Rabe.

I pity the symposium of pigsfeet, sauerkraut, beer and tobacco that calls itself a man. It costs little to be decent.—*Philistine.*

veloped attack of a first or a fresh gonorrhea (and you see that abortive treatment is contraindicated). How will you treat him to obtain best and quickest results? First, the general treatment:

General treatment.—That the patient should be as quiet as possible, and walk as little as possible goes without saying. But right here I want to protest against a piece of pernicious advice, often found in text-books, and in articles on the subject. I refer to the advice that the patient rest in bed. Most decidedly he should not stay in bed! As I stated elsewhere, this is injurious for several reasons. It permits the pus to gravitate towards the posterior urethra and the bladder; it favors chordee; it favors congestion of the sexual organs, and the patient being unoccupied, his thoughts wander towards sexual matters, and his condition is aggravated. Under no circumstances should the patient with an uncomplicated gonorrhea stay in bed in the day time. Stay around the house, perhaps, but not in bed.

The diet may be anything at all, with the sole exception of highly seasoned food and spices. Coffee is better eliminated, but there is no objection to cocoa and chocolate, provided they are not taken too hot. Weak (straw colored) cold tea may be taken in abundance, as well as lots of water in general (but not towards the latter part of the day).

How about smoking? Cutting off a patient from his smoke because he has gonorrhea, has always seemed to me the acme of absurdity. What injurious influence a cigar or a cigaret may have on the course of a urethritis is more than any doctor could explain. Let the patient smoke all he wants to. To me, smoking seems even beneficial, for in many persons it exerts a sedative effect on the sexual apparatus. To deprive a person addicted to smoking from his customary pleasure is to make him more fidgety, more irritable and to aggravate, instead of alleviating, his trouble. [The writer does not smoke.]

The bowels must certainly be looked after. Constipation is very injurious, and almost as much so is a diarrhea. In short any irritation in the lower bowel will react on the urethra. Very mild laxatives and warm water enemata (not glycerin suppositories; they irritate) should be used.

A suspensory is beneficial, but it must be snug and well fitting; not too tight and must not "cut" the penis. Of course, we must impress upon the patient the infectiousness of the gonorrheal pus and the fearful dangers of a gonorrheal ophthalmia. Not to do so, is criminal.

Internal treatment.—I understand there are some genito-urinary surgeons who do not believe in the internal administration of antiblenorrhagics. They base their lack of belief on the fact that sandalwood oil, copaiba, etc., have not the power to kill gonococci when brought in contact with them. A sad illustration of the subjection of clinical facts to test-tube experiments. Whoever has seen even once the remarkable change in the amount and quality of discharge, the diminished ardor urinæ, etc., from a good oil of sandalwood, without any other treatment, will not have to be urged to use this drug and its congeners in all forms of acute urethritis. And so then, I do believe and very positively, in the internal administration of drugs in gonorrheal urethritis.

The first mixture I prescribe has generally the following composition:

Potass. citratis	drs. 2
Potass. bromidi	drs. 2
Liquor potassae	dr. 1
Extr. tritici fl.	drs. 6

Get rid of your dead self; and let this body you carry be wholesome, clean, a fit temple for the Divine Spirit.—*Philistine.*

Large fierce attorneys cower and quail when it comes to facing a little woman with a babe at her breast.—*Philistine.*

Aquæ menth. pip ad.....ozs. 6

M. Sig: Tablespoonful three times a day.

This mixture takes away the excessive acidity of the urine and also prevents chordee to a certain extent. I order, besides, a five grain tablet of hexamethylene-tetramine in a glass of water three times a day, and 1-120 grain of hyoscyamine three or four times a day. The former I give invariably in every case; it acts as a prophylactic against bladder infections, and, besides, renders the urine more or less aseptic. The hyoscyamine prevents strangury and has also a good effect in obviating, or alleviating, chordee. Flaxseed tea taken in abundance is very useful. The patient adds a tablespoonful of whole flaxseed to a quart of cold water, allows it to macerate for fifteen to twenty minutes, strains and adds a little lemon juice. The lemon makes the flaxseed tea more acceptable to the taste and prevents nausea. This treatment is kept up for about a week; then with the advent of the declining stage, the administration of the real antiblenorrhagics is commenced. The three antiblenorrhagics are: Copaiba, cubebs and oil of santal. Of these I prefer the last, but the oil must be of good quality. Much of the santal oil of the drug stores is almost worthless. I give it in 5 to 10 minim capsules three to six times a day. Sometimes I prescribe the following capsule:

Olei santali.....mins. 5

Ol. terebinthinæ rectif..mins. 2

Ol. cinnamomi.....min. 1-2

Caps. No. 1. Sig: One three to six times a day.

Copaiba and cubebs are efficient, but they work havoc with the stomach and as to the old fashioned Lafayette mixture —very few "respectable" people can stand it. Methylene blue and salol I prescribe only in very rare cases, when it seems necessary to change drugs. In fact, since the advent of hexamethylene-tetramine (urotropin), salol is being used less and less. This is about all for the internal treatment. The local treatment we will discuss in the next chapter.

THREE UNNECESSARY OPERATIONS.

R. C. Elsworth, M. D., F. R. C. S., surgeon to the Swansea Hospital, has a very interesting article in the *Practitioner* (June 1906) in which he reports several instructive cases, demonstrating the unreliability of the classical, text-book symptoms. Among other cases he reports the following, which we take the liberty of reproducing here.

Man, age 34, has always been healthy; has been through South African war. He had had two attacks of cystitis, the last while in South Africa. Both attacks got well under treatment, and he remained well till the present attack. The present attack resembled the previous ones, but had resisted all efforts at treatment. He had great frequency of micturition, and was not able to retain his water for an hour at a time. He had pain in the perineum, along the urethra, and in the bladder, which came on in paroxysms after micturition and quite independently of it, he had also pain in the back, and some tenderness in the loin on percussion. There was no stone, the urine was acid, and contained pus and mucus, but no blood. He was worn out with pain and loss of sleep.

Owing to the pain in the back and tenderness over the left kidney associated with acid pyuria, the author thought it probable that he had stone in the kidney. Accordingly, he cut down on the left

If there are sleazy strands in the warp and woof of your character they will reappear in the woven fabric.—*Philistine.*

There can be no art without love, and the love you keep is the love you liberate in your work.—*Philistine.*

kidney and explored it, and the ureter as well, but found nothing. The wound was closed with drainage, and the patient sent back to bed. His distressing symptoms were in no way relieved.

On examining the patient on a subsequent date, he complained of pain in the right loin, and on percussion showed marked tenderness. The question which presented itself was, is this an instance where the pain of a calculus has been referred to the opposite side, and the calculus has been in the right kidney all the time? The matter was explained to the patient and he agreed to another operation. The right kidney was explored with a like negative result, and the symptoms remained unrelieved.

A cystoscopic examination was made a few days later, and the case at once became clear. On the posterior surface of the bladder, a little above the base of the trigone, was an irregular ulcer about the size of a sixpenny piece, surrounded by a zone of intense congestion, and coated with a cloud of mucus. About an inch to the left of this ulcer was a second about the size of a split pea, also surrounded by an areola of congested mucous membrane.

Suprapubic cystotomy was performed, and the bladder drained continuously till after a considerable time the ulcers were seen to have healed, when the patient was discharged well.

—:o:—

Now first, the question that I cannot refrain from asking is this: Why was not a cystoscopic examination made before both kidneys were cut down upon and explored? Why? Is exposing a man's kidneys such a trifling procedure that it is not worth while making sure that such an operation is at least indicated? Second, I have my very grave doubts that the suprapubic or any other cystotomy was necessary. Ulcers of the bladder can be cured without an operation. Rendering the urine bland and non-irritating and irrigating the bladder with antiseptic solutions will often do the work. It is only after milder measures fail, that an operation is justifiable.

THE PREVENTION OF SYPHILIS.

Prof. Metchnikoff's results in the prevention of syphilis, recently reported to the Paris Academy of Medicine, possess a deep interest. They are interesting and important, both because an important advance has been made in the prophylaxis of lues and because one of the subjects experimented upon was a human being. The anti-vivisectionists may go into hysterics over the fact that a human being was deliberately inoculated with syphilis, but as the subject, a medical student, did it of his own free will and accord, fully cognizant of the risks he was running, nobody can properly object. The report is, briefly, as follows:

Having convinced himself from numerous inoculations of monkeys with syphilitic virus that the development of the disease can be prevented by rubbing the point of inoculation with mercurial ointment, Prof. Metchnikoff decided to try the experiment upon a human being. A medical student of the faculty of Paris, free from any syphilitic taint, hereditary or acquired, offered himself for the experiment for the sake of science and humanity. Accordingly, on Feb. 1st, Metchnikoff, in the presence of Dr. Queyrat, Dr. Sabouraud, and Dr. Salmon, inoculated the student in the balano-preputial groove on the left side with syphilitic matter taken from a hard chancre of one month's duration,

It is neither wise nor beautiful to regard one soul as superior to another, even if that other is yourself.—Maeterlinck.

She smothered troubles in heroic effort, or rather I should say she forgot her troubles, and then she didn't have any.—*Philistine.*

and on the right side with syphilitic virus from a hard chancre of between nine and ten days' duration. Portions of both types of virus were also inoculated into four Javanese macaques. One hour after the inoculation of the virus the inoculated parts of the student and of one macaque were rubbed for five minutes with an ointment consisting of 30 grams of lanolin and 10 grams of calomel. Twenty hours after inoculation the inoculated part of the second macaque was also rubbed with the ointment. The two other macaques were left without treatment as controls. Two days later the site of inoculation in the student showed no trace of inflammation; the marks of the scarifications were, however, obvious, but even they disappeared within a day or two afterwards.

No sign of syphilis had presented itself in the student, although the two control macaques developed typical syphilitic lesions, and of the two macaques which were treated with the ointment, the one which was treated 20 hours after the inoculation developed a primary chancre after 39 days of incubation. The one which was treated an hour after inoculation showed no sign of syphilis. Metchnikoff concludes by saying that this experiment is a proof that calomel ointment, applied one hour after inoculation of syphilitic virus, is capable of preventing the development of syphilis in man, as it is in monkeys. It also proves that after 20 hours the ointment has no preventive action.

We may therefore, assert, with a fair degree of positiveness, that a strong calomel ointment may be considered a prophylactic of syphilis, and should be used immediately after any suspicious coitus where luetic infection may be feared.

From a sociologic point of view this contribution may be epoch-making.

OBSTINATE ULCERATION.

That some very obstinate ulcers, which have no specific characteristics, may still be of syphilitic origin, is well and convincingly illustrated by a case which was reported by Dr. L. Duncan Bulkley at the last annual meeting of the American Dermatological Association. (*Jour. Cut Dis.*, June 1906). The patient, a very intelligent man, about 40 years of age, had suffered for 10 years from a remarkable ulceration which had first involved and then gradually extended over the pubes and both groins, the perineum, and the anal region. For ten years the disease was looked upon as of tubercular origin and treated by different methods, including the x-ray and the Finsen light. The patient usually spent two hours every morning, dressing the wound. A diagnosis of syphilis had never been made, but after three months of energetic mixed treatment, without any external application whatsoever, except absorbent cotton, the ulceration healed up absolutely and has remained so up to the present time.

INTRAVENOUS INJECTIONS OF MERCURY AS A THERAPEUTIC TEST IN THE DIAGNOSIS OF SYPHILIS OF THE NERVOUS SYSTEM.

Dr. William F. Bernart (*Iowa Med. Jour.*, June) considers the intravenous injection of mercury superior to any other method of treating syphilis and its action when thus administered is so prompt and positive that it can be used for diagnostic purposes. He says that where active syphilis is the direct or auxiliary cause of

W. H. Vandervilt said: "Folks who can not get along without money, can't with. He who needs no help attracts everything."—*Philistine.*

Do your work well enough and there are people who will pay you for it. The man who sees a need is the one to supply it.—*Philistine.*

symptoms of the nervous system, the intravenous injection of mercury will show its action in from five to fifteen days. It is only in cases of gumma that the addition of iodine shows quicker results. If no positive results are obtained from the intravenous injection of mercury, then active syphilis can be positively excluded. The only exception to this is in cases of extensive sclerosis of moderately long duration. In such cases the results are occasionally hardly perceptible during the treatment, but after a lapse of two to four weeks the improvement is apparent.

As to the duration of mercurial treatment by the different methods, the intravenous route takes about one-third of the time required by inunctions, and about one-fifth of that required by internal medication, and is, besides, free from the disagreeable constitutional disturbances accompanying the latter two. The advantage of intravenous over intramuscular injection lies in the fact that they are about one-third quicker and more certain.

The technic of making intravenous injections is comparatively simple. A constricting band is applied above the point of injection and the distended vein is pierced with the needle; the free swing of the point proves its presence in the lumen of the vessel. The tourniquet is removed and the medicine is slowly injected. A glass syringe with a platinum needle should be the only kind used, and strict antisepsis must be observed. The preparations most commonly used are either the bichloride or cyanide of mercury in solutions of from 1 to 2 per cent. In several thousand injections, the only evil results ever encountered were an occasional slight vertigo or nausea usually accompanying the first injection, or on the other hand the needle-point might engage a vein valve after which a slight painful swelling follows; under massage and the local application of iodine this soon disappears. The veins of the forearms will furnish space for numerous injections. In fleshy people where the veins of the arms are difficult to reach, the veins of the feet can usually be utilized. The dose of the bichloride of mercury ranges from one-tenth to one-half grain. Beginning with a one-tenth grain injection a rapid increase can be made until the patient is taking maximum doses. These injections are to be given daily. The average well tolerated dose of the cyanide of mercury is from 20 to 30 minims of a 1 per cent solution (i. e. 1-5 to 3-10 gr.)

A NEW TEST FOR BLOOD IN THE URINE.

Dr. I. A. Klimoff (*Roussky Vratch*, April 22) considers the usual tests for blood in the urine not sufficiently accurate and recommends the following modification of Klunge's test: A portion of the urine is mixed in a test-tube with an equal volume of old turpentine, or still better, peroxide of hydrogen. This is mixed with a small amount of aloin in powder form and the mixture is gently heated. If blood is present, the mixture assumes a bright purple color. If no blood is present, the color of the urine is unchanged. It is important, however, that the urine be acid, for if the urine is alkaline, a purple color will develop whether blood is present or not. Assuming that the urine is alkaline and a purple mixture results; acetic acid is then added. If blood is present, the purple color remains. If absent, the purple color is changed to a yellowish tint. This test, while simple and trustworthy, is not applicable to the urine of jaundice, because such urine gives the

President Hadley of Yale said, the boy who gets the most out of college is the boy who works his way through.—*Philistine*.

The action of digitalin true, not Germanic, was elicited in 24 hours after its hypodermic injection into a cat.—*J. A. M. A.*

positive reaction whether blood be present or not.

THE ULTIMATE LOCALIZATION OF MERCURY IN THE BODY.

We learn from the *British Medical Journal* that Drs. Conti and Zuccola have carried out a series of researches with regard to the ultimate destination of mercury whether given hypodermically or by the mouth. They conclude that in whatever mode mercury is administered, it is carried to and deposited in the various organs by means of the white corpuscles of the blood. The liver, the intestines and the kidneys receive the chief bulk of the mercury in ordinary doses. Elimination and isolation from the more vital organs are thereby insured. In other organs—for example, salivary glands, pancreas, thyroid, thymus, testes, etc.—the drug is not deposited constantly, but only after excessive dosage, when the previously mentioned organs have become saturated. In every case the drug is situated in the nucleus of the cell by preference, rather than in the body, which seems to support the views of those who believe that mercury exists in the body as a nucleinate. The chief paths of elimination are the intestine, the kidneys, and the lungs, the saliva having only a secondary importance.

PROSTATIC ALBUMINURIA A CAUSE OF ERROR IN THE DIAGNOSIS OF THE SO-CALLED "ORTHOSTATIC," "PHYSIOLOGIC" AND "CYCLIC" ALBUMINURIA.

Dr. Edgar G. Ballinger (*Atlanta Journal-Record of Medicine*) reaches the following conclusions relative to the above subject:

1. Diseased prostates like diseased kidneys secrete albumin. The secretion from the normal gland is not albuminous, or it is present in such a small quantity that unless the seminal vesicles are massaged the urine passed will not give the tests for albumin.

2. This is apparently a constant symptom of chronic prostatitis and may be depended upon in the diagnosis.

3. Prostatic albuminuria seems to be an appropriate name for this condition.

4. In making insurance examinations, as well as in the diagnosis of obscure albuminuria this possibility should be eliminated with the other sources of contamination before reaching a positive conclusion.

5. The periodic increase in the prostatic discharge along with the striking similarity between the symptoms of intermittent, postural, orthostatic and cyclic albuminuria, and prostatorrhea makes the possibility of mistakes in the diagnosis extremely likely when this fluid flows back in the bladder and does not appear in the meatus.

LIGHT AS A GENERAL ANESTHETIC.

Professor Redard (*Lancet*, May 12,) claims that he can produce a condition of general anesthesia sufficiently deep for the painless performance of an operation of short duration by causing the patient to gaze fixedly on an electric light of 16 candle power inclosed in a blue glass globe, the patient's head and the lamp being covered with a blue cloth so as to exclude all natural light. He holds that each of the primary colors has a definite and characteristic effect on the higher nerve centers, red light having an exciting, yellow a depressing, and blue a calming influence.

Strophanthin which is very soluble in water produces its effects much more rapidly than true digitalin.—Fraenkel.

Gastric irritation is the first evidence of toxic action from a single toxic dose or from cumulative action of digitalis.—*J. A. M. A.*

GLEANINGS FROM FOREIGN FIELDS

Translated by E. M. Epstein, M. D.

A PHYSIOLOGIC STUDY OF FORMIC ACID AND THE FORMATES OF QUININE.

THE intention of this article would not be fulfilled without some reference to the clinical history of formic acid and the formates. We do this at the inspiration we got from a study of Dr. Marmaldi which resumes well the present state of the question.

Formic acid, which was employed with confidence by the ancients in various morbid conditions, came quite late into oblivion. It has now reentered on the scene by the light of modern experiments, which have demonstrated it to possess valuable biologic virtues and can therefore be made to do signal therapeutic service.

Lemery in *Pharmacopie universelle*, whose first edition appeared in 1697, and its fifth edition in 1764, made mention of "Hoffmann's Magnanimous Water" (*Eau de Magnanimitee de Hoffmann*), which was nothing else than a maceration of ants in alcohol and water, to which were added cinnamon, cloves, zedoaria, cardamom, and other drugs. "Its name," says Lemert, "comes to it because of its grand virtues, for that magnanimous water is able to revive the vital powers, to dissolve and resolve the cold humors, to excite the secretion of the sperm, and to give resistance against poisons."

Moses Charas, in his Galenic and Chemical Pharmacopeia (1717), makes the same mention of the tonic and stimulating properties attributed to ants. Wolden recommends the application of a watery dilution of formic acid to hasten the healing of chronic ulcers. B. Ewald, in his dissertation (1702), "*De formicarum usu Medicina*," advises the use of ants in the form of cataplasms, or of their pure juice, increased (allongé) with some water, for rheumatic and gouty pains, dropsies, chronic cutaneous eruptions, paralysis, and makes the singular suggestion of putting the member affected with muscular inertia into a swarm of ants.

The memory of these assertions was never lost in Switzerland and Germany where chemical formic acid, as well as that extracted from ants, seems to enjoy a certain popularity as a remedy against rheumatism and goiter (or "gout?").

Hugo Schultz put forward the antiseptic properties of formic acid in 1885, and the same year Kocwaes vindicated for it a real action on nerve centers, and on motor nerves. According to the last author formic acid would be a vasoconstrictor agent, while sodium formate would be a vasodilator and would be useful as a diuretic in dropsies without renal lesions.

Some years ago Garrique extolled, in his works, the formates in the treatment of infectious and chronic diseases, and especially in tuberculosis and cancer.

We find in his book the following notable passage, relative to the action of the formates, which he tried on himself hypodermically: "The result was prompt," says he, "My appetite increased very rapidly, as well as my cerebral activity and physical condition." This observation is exact enough, but this simple indication was not sufficient to fix the attention on the real

properties of formic acid and the formates as long as the official physician had not taken in hand the cause of the medicament.

None the less does the merit of having first called the attention of physicians to formic acid belong to Dr. Garrique; and the equal merit of having studied this medicament by the light of modern experimentation, and of having made known this so special and important action which it exercises on the muscular system, belongs to Clement, the honorary physician of the Lyons' Hospital.

On the 14th of March last, Huchard made a communication to the Academy of Medicine at Paris on formic acid and the formates, and besides confirming what we said above, he signalized the diuretic action of the medicament.

After the numerous experiments which he instituted with all scientific rigor, Clement came to the conclusion that formic acid augments muscular force in considerable proportions, and at times even to fivefold; that it stimulates muscular activity, and increases its resistance against fatigue, that it acts on the entire muscular system of striated and smooth fibers alike.

One other very important action of the medicament, vaguely referred to by authors, but very distinctly constated in nearly all the observations of Huchard, is that which formates exercises on diuresis, which it increases rapidly and notably. But this diuretic property of the remedy seems to be less constant than that of theobromine. But concludes Huchard, if subsequent observation should prove that the formates can even but attenuate the quantity of albumin, as it seems it can, then it could advantageously be utilized in renal affections and in arterial cardiopathies.

Among other things which physiologic experimentation positively demonstrated is that the formates have a very small grade of toxicity, which is, so to say, negligible.

Quinine formate was taken up as a subject of study and research by M. Lacroix, who names the product "quinoform." We give here the most important parts of his work.

"Formic acid being of all acids the one whose molecular weight is the most feeble, therefore are the formates where weights are equal the salts which contain the greatest proportion of alkaloids.

"Quinine being a diamine and formic acid being a monovalent, we can, therefore, have two formates of it, viz.: (1) a neutral formate composed of two molecules of the acid for one of quinine, comparable to quinine bichloride; (2) a basic formate $C_{20}H_{24}N_2Co_2H_2$, composed of equal molecules of quinine and acid, comparable to basic sulphate of quinine.

"Neutral formates appear in long, white, brilliant, needle-shaped crystals, soluble in water, best in warm, and contain 77.88 per cent of quinine. It is unstable and loses the acid before 122° F. The solution is acid. It melts at about 203°F.

"Basic formate is obtained by a saturation of quinine in precisely that amount of water which is necessary for the crystalized pure formic acid. An excess of heat must be avoided. It crystallizes in beautiful, brilliant, white needles forming silky tufts. Its taste is far less bitter than quinine sulphate. It is very stable and contains 87.56 per cent of quinine, and this makes it the richest in quinine of all quinine salts. It is also the most soluble of all basic salts, and its solution, of neutral reaction with litmus, is unpainful in hypodermic injections.

"It dissolves in nineteen parts of water at 59°F., in eight parts at 89°F., in six parts of water at 107.6°F., and in still less water at the boiling point.

"It melts at 269.6°F., and is levorotatory.

The interval between the time of giving digitalis principles and their manifest effect is proportional to their solubility.—Fraenkel.

As digitalin Germanic is by far the most water-soluble of the foxglove glucosides it is the quickest to get to work.

"The fats must be kept in mind, that the basic salts of quinine give a solution which is neutral to litmus, while the neutral salts give an acid solution. These facts are often confounded and may occasion grave inconvenience in hyperdermic medication."

We have said that basic quinine formate, or quinoform, is the richest in quinine among the different neutral or basic salts known and is also the most soluble of basic salts. It owes this, its solubility, to the small quantity of formic acid which enters into its composition, an acid which is bound to be rapidly transformed in the organism into carbonic acid.

From the composition and the physical properties of quinoform we can deduce its therapeutic properties.

It will be possible, no doubt, to avoid the well-known more or less grave accidents consequent upon the hypodermic injection of quinine hydrochloride, accidents mentioned by many physicians and more especially by Drs. Kelsch, Moty, Lafforgue, Malefosae, Reynier, Coste, Spire, etc. These authors ascribe the accidents and above all the abscesses, not to the organic tissues into which the injections were made, nor to a faulty asepsis had, but rather to the caustic action of the quinine salts used, augmented by the quantity of it in the solution injected. And so Drs. Coste, Malafosse, Spire, etc., prepared a very attenuated solution to the twentieth part, and tepid.

"Struck by this fact," says Mr. Lacroix, "I tried to find out whether pure quinine or its oily solution were caustic. The result was negative. It is not therefore, the alkaloid which is to be incriminated with the escharotic action on the tissues of the organism. But it is the causticity due to the basic salt? Dr. Kelsch has made a thousand hypodermic injections with basic quinine hydrochloride and had not a single serious accident.

"If, therefore, neither the alkaloid nor the basic salts of it, produces the symptoms of inflammatory lesions are they then not attributable to the neutrtal salts? It is this that I undertook to demonstrate. Let us examine then what takes place after a dissolution of a mineral salt, and let this be a neutral quinine hydrochloride inasmuch as this salt is indicated by the Codex (French) and by the formulary of the military hospital.

"If now we calculate by a simple chemical equation the quantity of hydrochloric acid set free we will find that one gram of a neutral hydrochloride will give origin to thirty-four centigrams of official hydrochloric acid. It will be readily admitted that this quantity of acid may occasion either pain or inflammatory lesions.

"But this is not the case with the formate, for this salt is not decomposed by the water with which it gives a neutral solution. The trials which were made showed that the hypodermic and intramuscular injections made are painless, absorb rapidly, and produce neither nodules nor inflammatory lesions."

Dr. Bardet says, that quinine formate seems able to render therapeutic service because it presents the peculiar quality which permits the use of basic and neutral salts of quinine without inconvenience because their solutions are not acid. And it is just in hypodermic injections where the hydrobromides and hydrochlorides give bad results, because, as Prof. Pouchet explains, in his excellent lessons on Pharmacology, they precipitate abundantly when they come in contact with the blood serum.

The formates are very soluble, adds Dr. Bardet, since nine weights of water are enough to dissolve one weight of salt, but it is less soluble than the basic lactate of which one weight dissolves in three weights of

In old infusions the digitalis glucosides are changed into convulsant principles, also in the leaf.—*J. A. M. A.*

Sollman suggested that strophanthin may deserve even greater popularity than digitalis; recent investigations support this view.—*J. A. M. A.*

water. It may be thought that this difference is a great inferiority, but this is a mistake for it will be found that concentrated solutions are impracticable on account of their escharotic actions on the tissue.

M. G. H. Lemoine says: "I recently used hypodermic injections of quinine formate in doses of 20 centigrams to two cubic centimeters of excipient giving two injections a day, and in two cases of paludism I obtained the cessation of the attacks as with quinine hydrochloride in doses of 30 centigrams. The difference between the two medicaments is, that the first causes no pain whatever, and leaves no trace whatever, while the latter is often very painful and leaves always local nodosities which persist a long while."

Quinine formate can, of course, be given per os, and it is always advantageous to substitute it instead of other quinine salts. It is given in cachets in form of 0.25 to 0.50 (gr. 4 1-2 to gr. 7 1-2) doses.

The daily dose equals to that of quinine sulphate. For an equal result the same dose is more active because, as Lacroix has shown, it contains more of the quinine alkaloid than all other quinine salts.

(Translated by Dr. Epstein from *Revue Therapeutique des Alcaloides*, Directeur A. Houde, Paris, Mai, 1906.)

NASAL CATARRH.

L. Marget recommends against this trouble of the nose the inhalation of the vapors of hydrogen peroxide, which must be brought to the boiling point. It is not spraying merely. It is to be done from one to four times for five minutes, each time, and next day the catarrh will have disappeared. When the nasal cavities are totally occluded they should be treated preliminarily with solution of adrenalin 1-1000, which makes free passage for the vapor. Chronic catarrh requires more time.—(*Presse Medical*, 1905, p. 803, in *Centralhalle*, 1906, p. 93.)

GAMENOL.

This is an ethereal oil derived from the Melalenca viridiflora, a plant of the natural order Myrtaceae, recommended in pulmonary tuberculosis and generally in diseases of the respiratory organs, given in 0.25 Gm. (grain 4 1-2) doses in capsules, four to ten such in twenty-four hours. It is useful also in rheumatism and nerve pains. In bladder inflammation it was found to act beneficially as a two per cent injection.—(*Arends. Neue Arznmit.*, 2 to *Aufl.*)

Cumulative effect of digitalis. C. Focke says that this idea came in vogue the first decennium of last century in all probability, and was retained ever since as a convenient shift for any digitalis effect that could not be otherwise explained.—(*Centralh.*, 1906, p. 117.)

To protect a shedding nail, after an onychia or injury, is best done by filling out the defect with several layers of collodion, which does not hinder the nail from renovating underneath. This will permit working with the finger and coming in contact with things without injury.—(*Centralh.*, 1906, p. 117.)

Reports from Paris laudate the use of formic salts, which are a tonic influencing both the smooth as well as the striated muscles, and can be used in all cases of debility, influenza, etc. The remedy is free from untoward side phenomena and is easily taken. The dose of sodium and potassium salts is three grams (gr. 45) during the day, in a syrup solution.—(*Berliner Klin. Wochenschr.* 1905, 767, *Ph. C. H.* 1906, p. 306.)

Owing to variable quality of strophanthus seed and tincture it may be well to use the pure principle, strophanthin.—*J. A. M. A.* Really!

H. K. Wampole & Co. have resigned from the Proprietary Association of America. This doesn't surprise anyone who knows H. K. He's square.

MISCELLANEOUS ARTICLES

"PUSHING FOR BUSINESS."

THE osteopath, mental and Christian scientist, the suggestionist, and many others, are doing an enormous business. The most loyal regular must admit, at least to himself, that many of the people who patronize this class are cured; it may be very humiliating to have to acknowledge this, but the fact nevertheless remains.

This class does not, however, cure a single case that you could not cure, if you were willing to try other things besides medicines. The fact that so many people have passed outside of the control of the physician into the hands of the osteopath and various others, shows that people exercise a supreme right to select any particular method they please.

Regulars must not think for one minute, that the people are absolutely bound to them, and must be treated their way. On the other hand, there is absolutely nothing in the code, nothing in medical teaching, nothing in the make-up of an honorable, conscientious physician, which directly or indirectly infers that he *must give medicine* to every patient he treats. You can be a regular, you can be honorable, conscientiously so, and yet cure your patients without medicine.

Unfortunately, during all the past ages the public has been thoroughly educated along this one line, that a physician's duty is to give medicine. It used to be, within the life-time of all physicians of ten or fifteen years' practice, that if a physician would not give medicines, simply suggestion and advice, the patient would go to some other physician who *would* give something, even if it were a placebo, not because the patient absolutely needed medicine, but because they wanted and demanded it.

Within the last years, however, changes have occurred, people have been most vigorously and rather successfully educated in the other direction. The osteopath and the rest of this class now cure without medicines. It is not the osteopath or his class who has brought about this change, but the change has occurred in the people. They created the demand and as a consequence there have sprung up all over the country, people who are willing to supply this demand. If the people had not been ready for the change they would not have accepted it, no matter who or how it was first created or suggested to them. No one can deny the rights of the people to select that treatment which they most desire. The people believe that by following any particular line of treatment they are made better; that is all that is necessary, for no matter how the results are brought about, the people are the judges, and, apparently, they are satisfied.

It does not make any difference if the mental or Christian scientist, or the osteopath, or any other of this class, has not the learning of the regularly educated physician, just so he satisfies the public—this is all that the public desires. The class just mentioned has not as much natural ability to cure and heal as has the regular practician; they have not been trained along lines that are conducive to treat diseases as successfully as the regular practician. There is enough evidence, which points clearly to

the fact that these healers have made fearful blunders at the expense of the lives of many patients, simply because they were not able to diagnose diseases properly, recognize dangerous conditions and treat them intelligently. The one who has to lose in these instances is, naturally, the patient.

How much better would it be if the regular practician of today would take up such methods as the people demand and treat them accordingly. The people want it and are satisfied with it; they are willing to pay a good, big fee. They are not humbugged, in the ordinary run of cases. Only where serious conditions arise, which can not be recognized by these healers from lack of knowledge, are the patients likely to lose life.

Take the osteopath who manipulates the spine, overcomes congestion thereby, who extends and relaxes the muscles, either singly or in groups, and creates better circulation, in this way gets rid of the waste and overcomes local congestion and brings about a generally improved condition. He is not humbugging his patient, he is actually benefiting them; he is doing them good and they feel it and are willing to pay for it.

It is a well-known fact, of which every physician is aware, that spinal nerves can be traced to all internal organs and are directly connected with them, that when these organs are not functionating properly, they produce areas of tenderness along the spine, the "spinal irritation" of the old school, which has been recognized and treated for years and years. The osteopath can always find a tender spot along the spine. There is a congestion throughout the area of the posterior spinal nerves which has been induced by disturbance of some interior organ and transmitted along the anterior spinal nerve. Whether we are able to explain fully or not, that manipulation of this tender area not only gets rid of the tenderness along the spine, but at the same times improves the conditions in these organs which are supplied by the anterior spinal nerves, really makes no difference. This is a fact, shown by demonstration. The next patient you get, he or she may have liver, stomach, heart, or lung trouble or trouble in the pelvic organs; hunt for a tender spot along the back and you will likely find it on one side or the other, probably on both sides; manipulate these spots well with the tips of the fingers, press on them, knead them, and you will find the spinal muscles more or less rigid, which afterwards become relaxed, the pain will very likely shoot from the tender spot along the anterior spinal nerve to the region of the organ that is affected. It is an absolute fact that manipulation on these tender places improves the patient, and if continued will cure him. Now, what wrong can there possibly be if a physician takes up this line of treatment; no matter who originated it, whether he was a quack or not, patients are cured in this way, and it is your business to cure; if you do not cure patients in this way the quacks will.

I am well aware that many of the medical profession assert a certain dignity, which rightfully belongs to it, which does not permit the physician to recognize the osteopath as his competitor. He will not, therefore, use the methods of the osteopath because they might conflict with the "code" or his dignity. The fact is, the osteopath is not a competitor in an intellectual sense; he is a competitor in *one way only*, and that is in the money-making way, and, I am afraid, he excels in this. He is taking money from the medical profession which rightfully belongs to it, but which will return to it just as soon as general practicians wake up to the fact that this is a means of curing pa-

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People who ask your advice seldom want it. What they really desire is that you should back up what they wish to do.—*Phil stine.*

The mintage of wisdom is to know that rest is rust; and that real life lies in love, laughter, and work.—*Philistine.*

tients; that the people want it and demand it, that it is perfectly legitimate, and, what is more, that *they will get it.*

It is difficult to understand why the physician will allow the office of the osteopath to be crowded with patients, whose spines and muscles he manipulates and receives at least $2.00 for each treatment, when the physician himself can have all this business and a great deal more. He can take better care of the patient than the osteopath can, because he has more knowledge; there is no need of allowing this class of patients to pass out of the hands of the regular practician.

My advice is to get a book on osteopathy, study it up carefully, and you will find there is really more in it than you think for, without having investigated it.

I have on a number of occasions relieved pain in muscles and organs simply by manipulating the tender points along the spinal column; the effect was something astonishingly marvelous and very frequently relief was obtained within five or ten minutes. Try it yourself and see if the statement I make is not a fact and get to work along these lines. Keep your patients to yourself and do not allow them to drift into the hands of quacks who have the peculiar faculty of always finding tender spots along the spine and relieving them by manipulation, making a very good living out of it. I do not say that this is all there is to osteopathy, but I do say it is a great part of it.

Take other classes, mental or Christian scientists, suggestionists, it is simply amazing to see how rapidly the ranks of this class are being recuperated, and how many thousands and hundreds of thousands have gone over to this special class, who do not possess any particular healing power or ability over the regular practician, yet there are thousands of patients who are daily leaving the regulars to be treated by this newer way. Now, what is there in this "new thought" method that is attractive and that cures? Nothing more than what every practician himself has been using consciously or unconsciously ever since he began practising medicine.

In all of these instances it is suggestion; the individual is made to believe that certain effects can be brought about. The one who makes these suggestions may not be honest, and may state that he possesses some magnetic power, some healing influence that passes from him to his patient. This is, however, absolutely not the case. All the so-called faith cures, all the magnetic healing has been brought about simply by a direct effect upon the mind; the patient is made to believe he can and will be cured; the healer has nothing to do with the cure except to make the impression that it can be done. He does not cure except by suggestion; the patient cures himself through the power of his own mind.

The cure wrought through new thought depends entirely upon the fact that the mind is powerful enough to cure diseases; if the individual will exercise his will power and assert that the cure will come. What wrong can possibly come to you, as a practician, or how does it conflict with the code or any of your medical teachings, if you tell a patient you can cure him and that you will cure him, and that you have the power to do so; or, that it is through your influence that the cure is brought about. This is nothing new to you, you have done this consciously or unconsciously, and the physician who has been going about this consciously, who makes his patients believe in him, talking in a positive manner, without any doubt or hesitancy on his part, is the successful physician and in nine cases out of ten he will cure his patient.

Better the quality and quantity of your food and up to a certain point you increase your strength. —*Philistine.*

Go on increasing your food and you get Diminishing Returns. Go on increasing it and you get Death. —*Philistine.*

I do not mean by this when you have what you know to be an incurable case, to say you can cure that disease; that is not the idea. All the new class of healers will say that they can cure these cases. Perhaps they believe they can, but they have not sufficient knowledge to know the exact condition of the patient; they are not able to make a correct diagnosis; they have not the brains and experience to recognize a serious condition. They do not know that a patient is afflicted with an incurable malady. The advantage you have over this class is *you know* and you can use your own knowledge and judgment and go just as far as you please. There is no case, I care not how sick the individual may be or how fatal the malady, but that you can improve his condition and make him feel better by giving such medicines as you may think proper and by making suggestions to this patient that he will get well, by using any means he may wish. Benefit your patient by using anything that will do it.

If a patient is particularly depressed or sick, it is your duty to tell that patient that he must talk to himself the same way he would talk to an individual depressed or sick. He must say to himself: "I will not be depressed or sick, I will be cheerful, I will improve," and by making assertions along these lines daily, hourly, the patient is bound to improve, he can not help it. Now this is autosuggestion. You first make the suggestion to the patient and he then makes the suggestion to himself, and it becomes an autosuggestion. There is no individual, no matter how hopeless his condition, who, if he will continue to make suggestions of improvement to himself, but will improve.

This article is written practically for one thing, that is, to get physicians to "Push for Business;" there is no reason why these thousands and thousands of patients should be going outside of the regular profession when the profession can cure these patients much better than the various healers by using much more intelligently the means, backed by the knowledge that the physician has acquired. Thus he keeps within his own profession immense sums of money that are now falling into the hands of all kinds of healers. You have a right to protect your own business, to adopt any method, as long as you deem it to be honest, to further your own business. There is nothing dishonest in manipulating the muscles, there is nothing dishonest in making mental suggestions, there is nothing dishonest in using any kind of electrical appliances, because all this has but one tendency, and, that is, to cure patients. Your business is to cure and it makes no difference what means you use to accomplish this purpose, if you cure them. It is your duty to do all that is in your power to acquire all methods possible and not allow your patients to pass into the hands of quacks of all kinds, who are unable to recognize danger signs and frequently kill their patients for lack of skill and knowledge which you possess in diagnosis and in giving medicines when needed.

You not only benefit yourself, but you benefit the people by preventing them from frequently falling into the hands of uneducated healers, who have been known to permit patients to die, when they might have been saved, had a regular physician been in attendance.

By taking up these methods you are educating yourself along lines which the great mass of humanity is today following—mental lines, educating the mind, teaching yourself and the people that *the mind is supreme*, and, if trained properly, a great evolution will manifest itself. Study the mind. Educate it to control involuntary

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Imperfect renal elimination may be relieved by supplying the liver and intestines with water.—Alexander.

The doctors are at fault; the blame for this may be laid to deficient teaching of therapeutics in the medical college.—Pettit, *J. A. M. A.*

as well as voluntary movements and functions. The mind needs to be educated. It will not act without an effort. It is worth while.

JOHN M. SHALLER.

Denver, Colo.

PILOCARPINE AND GELSEMININE IN YELLOW FEVER.

I have been a reader of your most valuable JOURNAL for the past six years, and I must say it has always been a great help to me in my daily practice. I have never had one word to say on behalf of active-principle therapeutics, but I want to say just here that it is indeed the only line of treatment one can really rely on when it comes to handling real sick cases. It is not necessary to talk about the rationale of using the active principles as that naturally appeals to the thoughtful physician as being the only scientific way to administer medicines.

What I want to say more particularly is to emphasize what you had to say about the use of pilocarpine in the treatment of yellow fever. My experience is limited to about sixty-five cases without a death and I believe this drug acted as a lifesaver in my hands in several desperate cases. I must confess that this drug did not appeal to me very strongly at first, but being confronted with several cases in which death seemed imminent I decided to give it a trial, with the result that there was perceptible change for the better in the condition of these patients.

I believe the cases in which this drug is most serviceable are those with scanty urine loaded with albumin, the skin hot and dry and the patient in a comatose condition with fairly good pulse. If the pulse is very uncertain I always reinforce the pilocarpine with strychnine sulphate, gr. 1-40, given in conjunction with the pilocarpine hypodermically. In a very few minutes there is copious diaphoresis and the patient invariably rallies from the coma, for a while at least. And if the effects of the first dose seems inefficient I do not hesitate to repeat it with the strychnine added.

I want to call attention to the value of gelseminine in yellow fever. I believe in this drug we have a valuable addition to our armamentarium against this disease. I am not prepared to say in just what manner it acts to produce favorable results, but I believe it is probably due to its sedative effects on the nervous system and perhaps in this section, where malaria is prevalent, its antimalarial properties prove beneficial, for in nearly all cases there was found the plasmodium.

Adrenalin too, is one of our remedies that seems indispensable. It was my plan to begin this drug just at the period of remission of the fever, in 10 to 15 drop doses, and continue to the end of the attack. Since this disease seems to be a general congestion with dilation of all the vessels and consequent vascular lethargy, adrenalin is the physiological antidote for this condition.

I shall be pleased to have you urge the readers of the JOURNAL to give these remedies a further trial when opportunity permits.

A. W. DUMAS.

Natchez, Miss.

YELLOW FEVER AND THE "SKEETER."

Respecting yellow fever I will say, that purposely I have read very little literature on the subject, as it is so very easy to fall in love with a notion not one's own, and no matter how erroneous, stick to it even in spite of repeated defeats.

But I read with interest the articles that appeared in the September JOURNAL and

If any medicine will secure specific results, it, I believe, is quinine and iron properly administered in pneumonia.—Galbraith, *J. A. M. A.*

A judge defines practice of medicine as consisting of diagnosis, ascertaining the cause and the cure by drugs.

hailed with pleasure the idea of calx sulphurata securing immunity from the mosquito. But—is the stegomyia fasciata really the only cause of infection? From what I have seen I have reason to doubt it.

In the city of Vera Cruz and the lower regions of the state, yellow fever is endemic. Cities a little higher up like Cordoba and Orizaba are visited now and then by the epidemic, at long intervals, and its ravages are tremendous. Both Orizaba and Cordoba are full of mosquitoes but the fever is always brought in by some patient who manages to slip in in spite of the quarantine. Is it possible that the mosquito is the only disturbing medium in a big city and from only one source? Let us take it for granted to be so.

In the city of Vera Cruz, the same as everywhere where yellow fever is endemic, every man, woman, and child born there is immune and the fever only attacks such outsiders who have settled there from places where yellow fever is unkown, while immigrants from regions where it is endemic, are respected. Now, these immune subjects are fed upon by the mosquito as much as anybody, without the latter communicating the disease to them. Here is true immunity.

More yet. It is a well established fact that the children born in Vera Cruz, any child of any parent, immigrant, native, or tourist, becomes immune to yellow fever if it only stays there from forty days to two months, even if it should be absent for twenty years or more. Yellow fever will respect it. Why should this be so?

Coming back to the stegomyia, which are plentiful in the summer months, which is also the yellow-fever time, did they distribute the yellow fever in the winter of 1879 to 1880? That winter yellow fever in Vera Cruz claimed many hundreds of victims, yet the summer is its period and mosquitoes are scarce in winter. At that time the epidemic was attributed to the tearing down of the old fortifications, which surrounded Vera Cruz, in order to enlarge the city.

Undoubtedly the skeeter is a pesky critter, and carries his pockets full of the germs of yellow fever, malaria, malignant pustule, and every thing else infectious, and noninfectious, but nasty and uncanny all the same. I believe in outlawing him, murdering him on sight, but I should not consider him the only scapegoat, and I think it real mean to shoulder all the blame onto the little fellow, just merely to get a whole lot of trouble "off'n our minds." That should not be done, for there is danger that while the highly-respectable medical jury is sitting on his case, their empty gaze fixed on nothing—almost, the rest of the culprit family, and perhaps the greatest offenders of them all, unknown and unnoticed are getting in their work rejoicing, without the slighest danger of discovery, because we amuse ourselves playing at science like boys and fritter precious time away shooting skeeters.

In the meantime, Doctor, allow me to thank you for your suggestion, and believe me I will act upon it conscientiously and report to you results. Do not think that I am antagonistic to your idea, only it seems ridiculous to me that everybody, taking the easiest way out of a difficutly, accept someone's theory without investigating for themselves, trying to verify or disprove it.

I am satisfied from what I have seen, as far as yellow fever is concerned, that sooner or latter the bottom will fall out of the theory that the mosquito alone is to blame for its propagation, and while I am satisfied that he, as well as other insects, carries disease-germs about, it will be found that there are other and more potent factors in the field

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The immense medical department of the Newberry Library has been transferred to the John Crerar Library.

Reciprocity of state boards between Wis., Ind., Mich., O., Ia., Kas., Ill., Neb., Ky., Md., Ga., Okl., S. C., N. M., N. D., and D. C.

which must be overcome. And in order to do that we must work more seriously and leave charlatanry to the quacks.

A. R. Hollman.

San Lorenzo, Vera Cruz.

—:o:—

Your large experience with yellow fever, and the fact that you live in a city where the disease is endemic gives your letter a peculiar interest. We have read it over carefully several times and find in it much food for thought. Yet, in spite of your extended experience, we are forced to dissent from you as regards the question of immunity and the propagation and dissemination of this disease. We think no one claims that the last word has been said concerning the causation or transmission of yellow fever. Doubtless we shall learn a great deal more upon this subject from investigators, like yourself, who have the clinical experience, which is so essential for the formation of safe judgment.

But we cannot believe that the work done along the lines of immunity through the extermination of the mosquito are to be disregarded or thought lightly of. We are having, and already have, too many object-lessons of the value of this fact. It would be interesting if it could be put to a test in cities like Vera Cruz, where the disease stands a menace to the health of every newcomer, even if the old resident is immune. Certainly the work in Havana has been a triumph of the new idea, and we believe as a result of the work thus far done in Panama that it will be as triumphant there.—Ed.

SEPTIC INFECTION WITH RECOVERY.

Since my greatest helper has been The American Journal of Clinical Medicine I wish to contribute, if possible, to its always helpful pages. On November 25, a cold, black evening, my cousin, a contracting carpenter, came into my office looking very gloomy. He had just completed a fine residence for an old neighbor living ten miles from my town, Aliquippa, Pa. As he was building the house I now live in, I asked him if he was through with the house before mentioned. He said he was, but had left Mr. C. and wife in bad condition. He said he had blood poisoning and his wife was also infected and requested him to bring or recommend a good doctor who might pull him through.

After relating the conditions I noticed we had twenty minutes to make a train for his station. I hastily gathered up some necessary equipment consisting of calcium sulphide, triple arsenates with nuclein and sulphocarbolates, and my ever-ready granules and told him to come along. After reaching the town we hired a livery rig and drove to the man's home and found the man suffering great pain in hand and arm.

After removing an antiphlogistine dressing I beheld a phlegmonous swelling of the hand and arm. I punctured hand and fingers with a liberal incision, as tension was great; watery blood and serum ran away profusely. No pus for four days. I used hot flaxseed poultices, ordered two trained nurses secured, one for the day and the other for the night. I put him on four 1-6-grain calcium sulphide granules every hour, night and day. Bowels were locked for six days with morphine previously given by the former doctor, who, by the way, would not meet me on the case.

A life was to be saved or lost. Suppression of urine was relieved by digitalin, foul ulcerated tongue treated by sodium sulphocarbolate and cleaning out intestine with calomel and salts. In a few hours the man's kidneys acted. Good pulse, had been 120; temperature 103° F. His upper lip and

Some camphor combines with glycuronic acid and exhales by the lungs; the rest exeris therapeutic effect.—Happich.

The *J. A. M. A.* report of Happich would place the fatal dose of camphor for a 200-pound man at 6 oz. Criminal carelessness.

nose discharged pus. An abscess on ankle was opened and flushed with H_2O_2. Lesions dressed with moist and hot bichloride gauze.

In the course of ten days from the beginning of infection a dark spot appeared on the hand, which I opened, and pus came, and plenty. I called Dr. G. M. McConnell, who asked me if I had read an article in the November JOURNAL regarding ergotin in septic infection. After reading the article I went to Pittsburg, Pa., although doubting whether anything would help in the case. I called on the Physician's Supply House and had the preparation prepared, namely ergotin, five parts, and glycerin, five parts, distilled water, seven parts, and had the nurse inject thirty minims every two hours, which acted well, temperature and pulse coming (pulse, 120; temperature, 103° F.) to normal.

I forgot his wife. The index finger of her right hand was infected from husband. Pulse, 100; temperature, 102° F. The second thirty minims dose of ergotin lowered pulse to sixty, temperature to subnormal, and cured the bad symptoms permanently in a few days. I opened the finger and evacuated the pus and it slowly came back to normal.

During the second week pure ichthyol was used on the man's hand and arm, painting it on thick every three hours, then washing off and reapplying. During the treatment hand and arm were opened freely in several different places, about six openings in all. H_2O_2 forced into wrist opening came out at fingers, thumb, back of hand, and in spite of all treatment the hand and arm was brawny, tense and painful, and it looked as if amputation would be necessary. The man's condition was such that this was impossible, but care and ichthyol at last succeeded, color returned to the hand and life still existed in the man. During treatment I had five different trained nurses. Some left the case, saying Mr. C. would surely die. They were sick of the case, although hardened in actual hospital experience. As soon as one left I secured another until the case looked more rosy. I made twenty-nine calls from November 25, to February 7. I dismissed the case healed. Thumb half ulcerated off but healed, all fingers contracted and wrist ankylosed but well. H_2O_2 was used lavishly on all lesions, absorbent cotton galore; ichthyol not spared; bichloride not forgotten. The man paid out over $200 for drug bill, trained nurses $390.00, consultation $15.00, my bill $158.00, in all, $863.00; but his life was saved and also that of his wife.

I must not forget the timely aid of Dr. McConnell, who is a wholehearted, noble doctor, who has always proved a great boon to me in times of trouble. He is also a good alkaloidist. W. D. E.

——, Pennsylvania.

SUBTROPICAL DYSENTERY.

The writer of the following, age 67, is a resident of Florida. He is a "country doctor," isolated from his medical brethren by distance, environment and circumstances that prevent his brethren of the city of Jacksonville from coming to his aid. He has therefore to depend upon his own knowledge and practical ability when subject to the inroads of disease.

This winter I had an attack of the disease called la grippe. Having regained, after a time, my normal condition, I was afflicted with a disease that was preceded by a torpid liver resulting in a constipated condition of the bowels. Before giving my impressions in regard to my individual case, I will briefly consider the pathology of this dis-

Mayer found ants carried typhoid bacilli from infected to healthy mice—and then to the experimenter himself.

A German druggist dispensed 155 grains of veronal by mistake for kamala and the patient died promptly.—*J. A. M. A.*

ease as it is understood by the profession at large.

The word "dysentery" is derived from a Greek word. By some it is called colitis. This last term I prefer to all others. This disease consists, in its earliest stage, of inflammation of the mucous membrane of the colon and rectum. This inflammation, by implicating the other coats of the bowels, may produce extensive and very intractable disorganization, giving rise to symptoms less acute than those of the early stage, but bearing a considerable resemblance to them.

The form of flux now under consideration commences in general with much the appearance of a common diarrhea, frequent and unseasonable calls to stool, with an irresistible inclination to strain over it. The evacuations are generally copious, of a fluid or semi-fluid consistence, streaked with blood and having a peculiar fetor. At other times blood and mucus, together with small shreds of mucous membrane.

On the 13th of March I had partaken rather freely of Armour's boneless ham. I had to arise in the middle of the night by a movement of the bowels. This appeared to be of the nature of an ordinary looseness or diarrhea. By sunrise I was compelled to arise for another passage. At breakfast time I ate very little, not having any desire for food. At the third passage I noticed slime, mucus and blood. Recognizing by this time the nature of the complaint, I abstained from all food for sixty hours, then only the white of one egg, fasting for twenty-four hours, then taking a cup of chicken broth.

Drug Treatment.—This was mixed but mainly alkaloidal. Believing that I required a free flow of bile, and a full evacuation of fecal matter, I began with grain doses of calomel every hour. Finding I did not obtain the desired result, I took a tablespoonful of "laxol" or pure tasteless castor oil. This worked favorably, but the evacuations of the dysentery did not seem to lessen in frequency and character. I now resorted to the alkaloidal and auxiliary treatment. After every movement of the bowels I took a granule each of atropine, aconitine, emetine and intestinal antiseptic. As auxiliary treatment five grains bismuth. In addition to this, finding that the improvement was not great, I had my nurse administer an enema of protargol solution after each evacuation.

Under this treatment and abstaining from all food but chicken broth, I gradually mended day by day and in the course of a few days was convalescent. In addition to the treatment outlined above I took each night a dose of laxol or saline laxative. During the severity of the complaint I had great depression of spirits and felt as though I should not recover. However, I managed to take notes from which I prepared this article.

A. T. CUZNER.

Gilmore, Fla.

INTERNAL ANTISEPSIS.

For some years I have been studying the therapeutic effects of various remedies, as internal antiseptics.

In the use of any of them it is first necessary to secure thorough catharsis. This (a) removes bacilli and toxins from the bowels and (b) puts the mucous membranes in such condition as to secure prompt absorption of the drugs.

I have watched the therapeutic effects of quinine in remittent and intermittent fevers, alcohol in pneumonia, snake bite and typhoid fevers; salol in influenza, fevers, diarrhea, cystitis, and also rheumatism; salicylate of sodium in rheumatism, fevers;

Sudden death of eczematous children due to internal foci of toxic staphylo or streptococci.—Bernheim-Carrer, *J. A. M. A.*

To establish reciprocity, it is only necessary for the states to adopt the standards of the Council on Education.—Webster, *J. A. M. A.*

sulphocarbolates in diarrheas, pneumonia, typhoid fever, etc. In the use of quinine and alcohol it is plain neither can be of benefit till absorbed into the blood and circulating therein.

The toxins in the blood produce more serious effects than those in the alimentary canal. You may except the ptomains that produce vomiting and intense diarrhea.

If the toxins in the blood are not destroyed or limited in their influence the disease is not abated. You have often seen opium and astringents fail to relieve diarrheas. The toxins in the blood not being destroyed, and being secreted by the mucous membrane of the bowels, continue the irritation and increase peristalsis and tormina. Antiseptics being administered, the irritation of the bowel subsides and tormina cease, not from any influence on the mucous membrane or the musculature of the bowel direct, but because the secretions of the bowels are more normal.

The beneficial effects of salol in influenza and in cystitis with foul smelling urine are plain proofs that the medicine absorbed does the work of an antiseptic both in the blood and also in the secreted urine.

The sulphocarbolates are not so much used as they deserve, because their work is not appreciated. There is a treatment of typhoid fever with castor oil twice a day, sufficient to cause one or two passages. Those who have used this treatment claim it causes the fever to be less, no tympanites, no delirium, less vomiting, quicker convalescence. I think the treatment could be improved by the use of sulphocarbolates of sodium or zinc each day as long as needed. The castor oil removes bacilli and toxins with little irritation, but neutralizes none in the blood.

I could give you an interesting case of rattlesnake bite treated with alcohol. I cannot see the therapeutic action of sodium sulphocarbolates in acute endocarditis, either direct or indirect.

Your article on cell selection is a pertinent inquiry, and the incident of the flagellum is very interesting. The more we study such the more clearly we can appreciate the effect of diseases and the action of antiseptics and disinfectants in the blood and tissues.

J. T. Curtiss.

Dwight, Kans.

SPINAL IRRITATION: CAUSES, SYMPTOMS AND TREATMENT.

Causes.—The most powerful predisposing cause is sex. Out of one thousand cases, eight hundred occur in females, and it occurs most between the fifteenth and thirtieth years. That it is hereditary in a few cases there is no doubt, but the majority are caused by falls, blows, strains and excessive muscular exercise; sexual excesses, excessive mental application, insufficient food and physical exercise; excess of alcohol and tobacco; typhoid, scarlet and intermittent and remittent fevers; diphtheria, dysentery, cystitis, gonorrhea, erysipelas; and all causes capable of reducing the powers of the system.

Symptoms.—The symptoms of spinal irritation, though numerous, admit of very exact classification and recognition as follows: (1) Pain of various parts of the vertebral column, existing either idiopathically or developed by pressure. (2) Cramps, either of a clonic or tonic nature, in those parts subjected to the influence of the spinal cord. (3) Loss of power in the same portions of the body, ranging from simple stiffness and weakness to complete paralysis. (4) Altered sensibility, either by excess or by great diminution of sensation.

The symptoms of spinal irritation are

Labbe explains excessive corpulence as due in part to retention of salt with corresponding retention of water.—*J. A. M. A.*

Irritate a sensory nerve, the supply area vessels dilate, and at the same time vessels elsewhere contract.—Brunton.

centric and eccentric. The centric symptoms are those which are exhibited by the diseased part of the cord or its immediate contiguous strictures. The eccentric those which are developed in the remote parts of the body.

Centric Symptoms.—Tenderness at some one or more points over the spinal columns increased by pressure. This is the essential symptom of spinal irritation, though varying in intensity from the slight degree of pain experienced upon strong pressure, to the acute hyperesthesia which does not allow of even the contact of the clothing without producing great suffering. It is generally complained of by the patient, but occasionally it must be sought for by the physician, and it is advisable to consider no case as one of spinal irritation in which abnormal tenderness on pressure over one or more of the vertebræ is absent. The seat of tenderness is generally in the dorsal region of the spine, but it may be found in the cervical or lumbar regions. The degree and character of the tenderness are subject to great variations. In some cases strong pressure is required to develop it, while in others the least touch is very painful.

Eccentric Symptoms.—These are, by far, the most important and noticeable symptoms of spinal irritation and are found in distant parts of the body; such as vertigo, headache, noises in the ears, disturbance of vision, fulness and a sense of constriction across the forehead, tenderness of the scalp, and in some cases the mind is more or less affected. Sleep is deranged in every case; generally there is some form of insomnia. Neuralgic pains are present in a great many cases. In some cases there are choreic movements, and spasmodic stricture of the esophagus is met with. Nausea is present in about one-half of the cases. In about two-thirds of the cases there is derangement of the sexual apparatus. In some there is an increase in sexual appetite and in others it is diminished. In some there is a heart disorder and aphonia and difficulty in swallowing.

The prognosis of spinal irritation is generally favorable if the treatment is persisted in long enough.

Treatment.—The principles of treatment applicable to spinal irritation are four: (1) Remove the cause. (2) Improve the general tone of the system. (3) Increase the amount of blood in the spinal cord and thus improve the nutrition of the organ. (4) Set up a counterirritant action in the vicinity of the disordered region of the cord.

The first indication is one that common sense teaches relative to all diseases, the cause of which is still in operation. It will generally be found there has been overwork or defective nutrition, improper hygiene or emotional disturbances, all of which must be removed if you expect your patient to get well. Second, the general tone of the system is to be improved by general tonics, as iron, quinine, mineral acids and cod liver oil. Third, the amount of blood in the spinal vessels may be increased by strychnine, phosphorus and morphine, or codeine. A good general tonic treatment is as follows: Give the patient three tablets of triple arsenates with nuclein after meals, with a 1-6-grain granule of phosphide of zinc. Before meals give the zinc phosphide for ten days, then stop ten days and repeat for ten days, when you will generally have given enough.

If required, repeat for ten days and then stop, but keep up the triple arsenates with nuclein daily for a month or longer, until it makes a favorable impression.

If the digestive powers are weak, give quassin, 1-12 to 1-3 grain before meals. Morphine or codeine is of great power in those cases in which there is contraction

In muscarine poisoning the pulmonary capillaries are contracted, the right ventricle distended, left empty.—Brunton.

Alcohol first increases, then lessens, the rapidity of bloodflow through the carotids, most in complete narcosis.—Brunton.

of the limbs, and may be given 1-8 to 1-4 grain doses night and morning. [Danger of habit to be thought of.—Ed.]

Picrotoxin has been recommended in this disease and has been of benefit in a good many cases; give 1-100 of a grain three times a day. So, also, is nitroglycerin very much used in doses of two granules of 1-250 of a grain three or four times a day. Cocaine may also be used, in 1-2-grain doses three times a day.

The application of Dr. Chapman's India rubber bag is very good treatment to increase the flow of blood to the spinal vessels. Dry heat may be substituted in some cases with benefit. The fourth indication is one of great benefit and importance, and when properly carried into effect, a cure will often result in mild cases without any other means of treatment being employed. This is by counterirritants in the form of mustard; but blisters being preferred, dry cups are also of some benefit, while the best of all are flying blisters applied on each side of the tender spinous processes, four or five inches above and below the tender spot. They should remain until they have drawn a good-size blister, when they should be removed and the parts dressed with unguentine or any other ointment to relieve the pain or burning. The actual cautery is more readily applied and is less painful and is to be preferred.

As to electricity, the faradic or galvanic current may be used, but in all cases I now prefer the high-frequency current as the most curative.

W. F. Radue.

Union Hill, N. J.

YOU OUGHT TO HAVE IT.

Doctor, I am going to prescribe for you something to stir up some of the dormant cells in your brain—something that will set you to thinking in a way that cannot fail to be of benefit, whether you come out on the same side as the writer or on the other. I want you to send to Dr. W. C. Cooper, of Cleves, Ohio, a dollar for his book on "Preventive Medicine." I don't know when anything has so stirred me up and pleased me as that book. Not that I agree with the writer in all respects; I would not thoroughly enjoy a book with all of which I agreed, but it certainly made me sit up and take notice in a way that very few books do; for after over fifty years of a bookworm's life, it grows difficult to find anything which does not leave a sense of weariness. In fact, the vast mass of literature today, to one who has read long, much and retentively, is simply a mass of literary "hash." There isn't anything of the "hash" order about Cooper's book. Not a bit! And that is why it is so interesting.

W. F. Waugh.

Chicago, Ill.

THE IMPORTANCE OF A THOROUGH AND ACCURATE KNOWLEDGE OF THE THERAPEUTIC ACTION OF DRUGS*.

It is not with any desire to press upon you my personal convictions as to the above question, that I submit the following considerations, but because of the paramount importance of the subject of which I write.

I in no way decry or underestimate the great subjects preceding the study of therapeutics, but I raise the question: Of what ultimate importance is a thorough knowledge, and a profound understanding of the subjects of anatomy, physiology, pathology, etc., except to prepare us for an intelligent, and efficient application of appropriate

*Read before the Vernon County (Mo.) Medical Society.

The rapidity of heart beats is chiefly regulated by inhibitory fibers of vagus, some by accelerator fibers.—Brunton.

Aconitine, veratrine, erythrophloeine and probably all digitalis group, slow pulse by stimulating vagus roots.—Brunton.

remedies for the restoration of the normal functions in the diseased conditions which we find to exist in our patients?

Given a certain train of symptoms, a certain combination of conditions as relating to a certain organ, we are led by our previous study to expect a certain variation, from the normal in that organ. Now as practicians, as therapeutists, our duty is to so apply the appropriate remedy in its simplest and most efficient form for the removal of the pathological condition, and a restoration of the normal or healthy condition of the part. This constitutes in brief our entire duty.

The next question that appeals to us is that of therapeutics: an intelligent, a concise, and an accurate knowledge of the medicinal agents applicable to the perverted condition existing in the patient now under observation.

Three things are necessary to a successful career as a physician.

First, a thorough knowledge of the healthy and normal system.

Second, a profound understanding of the physiological or pathological departures from this healthy and normal state.

Third, an acute and intelligent comprehension of the therapeutic action of the medicinal agents necessary to a restoration of the normal and healthy condition.

Possessed of these three qualifications combined with a fair degree of "horse sense," and a man will always be a safe, reliable, and successful physician. It is necessary, however, to keep constantly before the mind the above three fundamental facts.

The first duty to engage the attention of the physician when called to see a patient, is to make a careful and thorough examination, noting every sign and symptom, physical and mental, that will enable him to arrive at a correct diagnosis of the case in hand.

This should not be hurriedly, or carelessly made, but all the minutiæ should be entered into and the case fully and completely set out before the mind's eye, as distinctly and definitely as the camera would reproduce the physical features.

Often, after this careful examination we find we have been able to detect nothing of a serious character, and we are inclined to conclude that so much care and precision was unnecessary. But this conclusion is always erroneous for the following reasons:

First, if the trouble should prove to be but trivial or evanescent we are gratified that by this kind of an examination we have satisfied ourselves of the fact and our treatment is correspondingly simple and effective.

Second, we are not always able, by the most thorough and exhaustive examination, to arrive at a satisfactory or correct diagnosis on the first examination, and at subsequent visits we have a basis on which to rest our further examination which will, in the end, enable us to obtain a complete understanding of the case.

Third, by such an examination we gather a complete history of the case, the conditions prior to the attack, the causes leading up to the attack, the signs and symptoms accompanying and obtaining since the attack; these forming the basis of our diagnosis will enable us to arrive at a correct understanding of the condition of our patient. We are then ready to begin our treatment of the case.

The next important matter, and this is not necessary even to a correct diagnosis, is the selection from the almost infinite number of remedies, the ones that are peculiarly applicable to this case.

What does it profit the doctor, be he ever so clever as a diagnostician, if after his care-

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The aconitine group also acts on the cardiac vagus ends, the nervous mechanism or muscular fiber of the heart.—Brunton.

Nicotine acts slightly on the vagus roots, mainly on the peripheral cardioinhibitory system.—Brunton.

ful examination and correct diagnosis, he be unable from any cause to apply the remedy necessary to the relief of the patient. He must possess this knowledge, or he is surely doomed to disappointment and failure, and his patient to death. Without it he is as inefficient as the bird in the forest with one wing. It is not sufficient that he know that the "books" recommend aconite to cool fever, opium to relieve pain, ergot to produce contraction of nonstriated muscular tissue or atropine to dilate the pupil. He must know that these drugs do produce these effects, and more besides.

It is not enough to know that a certain "class" of remedies act primarily upon a certain organ, but it becomes necessary to know that secondarily they have a different action on the same or on different organs. It is proper to know that the mild chloride of mercury is a laxative or a cathartic in proportion to the size and frequency of the dose, but it is equally, possibly more important, to know that properly administered and safely guarded its most important function is its tonic, alterative and catalytic action after prolonged use.

It is also important to know that most drugs have, besides a therapeutic action, a toxic or poisonous action. It is equally necessary to know that this therapeutic or toxic effect may show itself in varying degrees in different subjects or in the same subject under different conditions. It is necessary to know that a drug, digitalis, for instance, belongs to the class of heart tonics, possessed of the power to produce a tonic or stimulating action on the muscular walls of the heart and arteries.

It is not enough to stop at a knowledge of this fact, but even more important it is to know that digitalis is a complex drug, containing elements of opposing therapeutic power, varying in proportion to such a degree that the ordinary fluid extract or alcoholic tincture becomes wholly unreliable as to the effect it may produce, this effect being determinable only after an experimental use of each sample.

Our experience with the whole drug action of this remedy becomes, therefore, one of constant uncertainty and confusion, one sample producing the hoped-for tonic action on the heart, the next sample producing the exactly opposite effect of depression.

Why this variable action? Evidently for the reason given above, that digitalis is a complex drug, consisting of different active elements, varying in their proportions in different samples, depending upon the parts of the plant used, the location where grown, the season of the year when gathered, and the manner of curing; obviously too many contingencies upon which to hang a reasonable hope of uniformity in strength of any one of the active principles. For these reasons it becomes necessary that the physician understand the pathological condition to be treated and then in the application of the remedy, he must know what effect he desires to produce, and in order to secure this effect he must understand the physiological action of the drug used.

In the case cited, he may be in possession of all the information above set forth and in the administration of what is presumed to be a reliable preparation of this drug fail to attain the desired result because of the complex and uncertain strength of the sample used.

In this event, if the physician desires a heart tonic effect, rather than depend upon the uncertain action of the tincture or fluid extract, would it not be the part of wisdom to use the active principle, the glucoside digitalin, which contains all the tonic elements of the drug to the exclusion of the inert and depressing elements? It seems

Physostigmine chiefly acts on the heart itself, the slowing of the pulse not being due to action on the vagus roots.—Brunton

Stoppage of the heart may occur in man from irritation of a sensory nerve, even under chloroform anesthesia.—Brunton.

to me that this would surely be the proper procedure. This is certainly the safe and rational method of drug administration. What is said of digitalis in the above instance will apply equally in the use of other complex drugs.

Our patients always, no matter whether the attack be mild or severe, have sufficient strain placed upon their strength and endurance by the disease itself, without adding to this the extra labor of eliminating from the system an unnecessary and often hurtful element contained in a complex drug.

In view of the foregoing it is with pleasure that I observe a growing desire on the part of the body of the profession to depart from the old method of "shotgun" prescriptions so long indulged in, with the hope of being able to hit the "bullseye" of the disease with some one of the elements contained in the prescription.

The prevailing tendency now is to simplify our prescriptions, to depend more upon the action of one drug at a time; if more than one drug is indicated to then give them alternately to meet the requirements of the case. The great body of the profession is now, as it has never been before, engaged in studying not only the action of the drugs, but the drugs themselves. They are making an honest effort to understand the condition of the remedies as well as their physiologic and therapeutic action. They are making a great effort to get down to "bed rock" principles. They not only want to know what are the most efficient remedies in a given case, but they want to know the smallest amount of that remedy required to produce the desired result. Stamped upon the mind of the earnest and progressive physician is this motto, "Give me the most efficient remedy in the simplest and most concentrated form to produce the most beneficial results." Because of the desire expressed in this motto we are gradually but surely approaching the time when active-principle therapy will obtain.

The only correct method of drug administration consists in giving the minimum amount in frequently-repeated doses until the desired physiological or therapeutic action is produced, and then continuing the administration sufficiently often to maintain this action until the desired result is obtained. When drugs are so administered the so-called cumulative action is never known, the system is never burdened by an effort to reduce a crude drug to a condition when the active principles may be appropriated and by the effort to eliminate some element both unnecessary and often hurtful. When so administered the physiologic and therapeutic action of the drug is always under control of the physician and the toxic effects need never occur.

J. Robert Buchanan.

Nevada, Mo.

"THE REVERSE OF THE MEDALLION:" WHY ONE CHILD DIED!

Reading the "field notes" and "practice notes" on calx iodata, they certainly impress one with the idea of "medicine as an exact science." It seems also to appear that the glory begins with a case of croup, and we almost wish to see a little wheezing sufferer because we know we can so soon relieve him, "astonish the natives" by our wonderful skill and go home with a reputation as the "infallible croup doctor" (a reputation indeed to be envied!).

But "all that glitters is not gold" and I believe it to your interest and mine to ask you to view "the other side." I send you a clipping from the literature of which I spoke and ask you to "gaze on this picture, then on that."

In excision of the eyeball the heart usually misses one beat at the moment the nerves are divided.—Brunton.

Quickening of the pulse may be caused by paralysis of vagi, stimulation of accelerators or direct action on heart.—Brunton.

One night I was hastily summoned to a case of ordinary croup. I was told the child had had a severe cold for a day or two and that now they feared he would choke to death. I thought "now or never," and gave a tablet of calcidin dissolved in warm water; in fifteen minutes I gave another; the child grew quiet, breathing much easier; in fifteen minutes more I gave another, and the child went to sleep. I sat and watched him an hour; he still slept peacefully, and I went home, a convert to the efficacy of calx iodata.

I was hastily summoned one night last week to a severe case of ordinary croup, called in consultation with another physician. Patient, a boy five years old. Attending physician was with him the night before through a similar though not so severe an attack. I, too, thought "now or never," and suggested calx iodata, 1-2 grain every ten minutes in hot water. Child had already had an emetic and vomited freely. At *no time* had there been temperature. I assured the parents and my consultant of the child's rapid recovery and came home full of confidence and the feelings of a night well spent. This was my first case of croup since beginning to use calx iodata, and now I was going to "start right."

Alas, the things we *don't* know far outnumber the things we do! And, our confidence once rudely shaken is hard to enlist again! In about five hours the boy died. I was shocked, chagrined and surprised, and now I gaze at my calcidin bottle as at all other "sure things" with much misgiving. Perhaps something is wrong with me.

It seems to me that alkaloidal medication is "the thing," yet I have used 3,000 strychnine arsenate granules, gr. 1-30, with none of the brilliant results which others attribute to them. Have used 500 triple arsenates with nuclein on one single debilitated case with no appreciable result. Have given three Waugh's anodyne granules to a "colicy" infant every fifteen minutes and the crying ceased not. Gave a bottle of Buckley's uterine tonic to a "desirous" female; she went to bed with proper accompaniment and yet did not "conceive." These things trouble me. But I can get saline laxative through a man moderately constipated, and I have used aconitine granules for facial neuralgia with good results for nearly fifteen years. Now, what's wrong? Or shall we say, "Nothing is sure, my dear sir, but death and taxes, and you are a victim of the most untoward circumstances."

O. A.

——, Illinois.

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Do not, for one moment, believe, Doctor, that this is a unique experience or your communication a solitary example. When *any* preparation exists which has the power of curing every case in which it is used, no matter by whom exhibited or under what circumstances, then we shall be able to call this infallible instead of fallible and shall begin to trench upon the preserves of the "most high," but, as one swallow fails to make summer, so one failure fails to discredit a medicinal preparation which has cured more cases of croup during the short period of time it has been at the disposal of the profession than any score of other remedies in twenty years!

Alas! we are not *all* intuitive diagnosticians; we are not *all* thoroughly familiar with the varying symptoms of complicated diseases and are not always able to say "this is a simple case of croup" (or what not), and we are not all free from a certain amount of carelessness. In treating the croup we are apt to become oblivious of a

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If we can no longer slow or stop the heart by stimulating the vagi, these nerves are paralyzed; as by atropine.—Brunton.

Physostigmine renders the vagus more excitable so that it responds to slighter stimulation than normally.—Brunton.

sinking heart or profound enervation due to deoxidation of the blood stream and, while we are exhibiting calx iodata "to cure the croup" we are apt to omit the necessary cactin and strychnine, ammonium carbonate, or what not, which is absolutely indicated. There comes a time when the human system requires stimulation. The normal resistance to the attacking disease forces has been overcome. Now to give what under other circumstances would be practically a specific remedy will be useless unless we sustain the flagging vitality and enable the individual to "live long enough to overcome a pathological condition!"

Had the iodized calcium been exhibited early in this case the results would probably have been different, but, Doctor, it is more than possible that there were indications for some other treatment here. We have, time and again, pointed out these facts to the physician. We have urged and plead with them not to be *too* confident, not to look upon this remedy as a miraculous preparation, for we know from our own experience that even calx iodata cannot save every case of croup in any and every stage. *Nevertheless*, bear in mind the fact that there is no medicinal agent known to humanity which will prove as efficacious in croup as this, and bear in mind the fact that men who have hitherto lost every case of croup, have, since using it, saved 98 percent (and some 100 per cent) of their cases. Look upon the picture from *all* sides, using the good common sense which we are sure you possess, and then use the remedy again, not expecting it to do aught but what lime and iodine *can* do and keeping a sharp lookout for edema glottidis, diphtheria, systemic toxemia, failing vitality and other conditions which may kill even while you are trying to treat the croup.

We will not discuss the strychnine problem. Gr. 1-30 of strychnine arsenate given when that drug and dosage is indicated will "give results" as surely as water will quench fire. A "debilitated individual" ought to respond to the arsenates with nuclein *provided* the cause of the "debility" was removed. Here, again, the question of fallibility comes in. No drug or combination of drugs can do everything. The arsenates with nuclein are the most potent tonic reconstructants we possess—nothing more than that. Use them in the right place (and way) and prove that fact.—Ed.

SEVERE CASE OF GALLSTONES CURED.

Patient, aged 58 years, after nervous prostration following bereavement, various nervous complications, rheumatism, neuralgia, sciatica, spasmodic closing of the throat at night, vertigo and insomnia, repeatedly built up to apparent recovery only to fall back with a sudden attack of pain in the abdomen, inability to eat or digest anything, becoming very anemic and debilitated. Several months' treatment at the hospital, with a diet of raw eggs, milk and beef juice, brought marked improvement in flesh and strength of nerves. She was ready to return home, when a sudden attack of gallstone colic prostrated her. The doctor in charge advised operation, but consent was not given.

After her return home there was an improvement for a while, followed by an attack more severe than before. She failed to rally as usual, the pain in abdomen was almost continual, with frequent spasms of gallstone colic; gall-bladder would puff out quite large and the patient was unable to eat anything without aggravation of suffering. October 25, I began giving before meals and at bedtime one granule each of sodium

Tuberculars returning to sanatoria with relapse invariably, give history of alcoholic excess, exposure and underfood.—Daly.

Aspirin is not decomposed nor absorption begun till it reaches the intestines, liberating salicylic acid there.—Luff, *Clin. Jour.*

succinate and boldine; with five dioscorein and one granule each of glonoin, hyoscyamine and strychnine arsenate in hot water as needed for pain.

The improvement was almost immediate; from being only able to take a little gruel through a tube, she was soon up and about the house, the abdominal pains disappearing, the ability to eat without pain returning, and improvement was so great and continuous that on December 4, less than six weeks from the beginning of the treatment, she was able to start on a trip to Florida, where for three months she has continued to improve constantly, eats the usual hotel fare without trouble, and walks from three to six miles daily. She has not had a gallstone attack since beginning the treatment, which she continues taking.

This marked improvement is all the more pleasing to me from the fact that the suggestion of the sodium succinate treatment was not well received at the hospital, exploratory incision being thought the only thing worth while.

C. E. Jewell.

Daytona, Fla.

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Intelligent medication with effective remedies *will* produce positive results. Sodium succinate and boldine are almost invariably efficacious in gallstones. The practician who mistakes an appendicitis for cholelithiasis or tries to remedy a cirrhosed liver with these drugs is, of course, doomed to disappointment. Moreover, the treatment must be continued for weeks or even months.—Ed.

TWO CASES OF BOWEL COMPLAINT.

Case I. Infant, age five months. First seen May 17. Baby was very fretful and apparently in considerable pain; refused to nurse and for past twelve hours bowels had been running off. Stools white, pasty and very offensive, passages occurred at intervals of less than an hour. I gave Mr. Baby a dessertspoonful of a mixture consisting of equal parts of castor oil and aromatic syrup of rhubarb and ordered one granule sulphocarbolate of zinc, gr. 1-6, every hour until bowels were checked. These were to be begun four hours after the oil and rhubarb. I did not have to see Baby again, as he was in apparently perfect health in twelve hours, and today is plump and pretty.

Case II. Male, age 45, married, day laborer. First called morning of May 22. Patient gave history of having had slight, irregular pains in the region of stomach for two or three days. On the evening before bowels began running off. Early in the morning he began having hard, crampy pains in the stomach and bowels which he continued to have until (and after) my arrival. I found him in agonizing pain, being in a kneeling position upon the bed with his hands grasped over the abdomen. He said his diet had been exactly what he was accustomed to eating. He stated that his bowels had moved at least twenty-five times during the preceding twelve hours. Stools were of a mucous character and very offensive. I was told that he had taken a large dose of salts early in the morning.

I gave a hypodermic of morphine, gr. 1-4, and atropine, gr. 1-200, and ordered two tablets of intestinal antiseptic (sulphocarbolates), followed by a large glass of water every hour till movements were checked. I was summoned again in the evening. I found patient in much less pain than in the morning, but condition of bowels unchanged. I added one tablet of zinc sulphocarbolates, grs. 2 1-2, to the intestinal antiseptic and ordered these three tablets (two intestinal antiseptic and one tablet sulphocarbolate of zinc, grs. 2 1-2) taken every hour, followed

Dr. Patek: How many kegs of Milwaukee beer would $833.45 buy by the keg and how much would it bring by the schooner?

How large a tip should a waiter expect from a man with an $833.45 stomach? Reply by Editor Patek of Milwaukee.

by a large glass of water. I saw the patient again on the morning of the 23d and found the diarrhea had checked to some extent, but still moved at intervals of from one and one-half to two hours. I ordered a grain each of calomel and soda every half hour until twelve doses were taken and added two and one-half grains zinc sulphocarbolate to the dose already being given, and ordered this given every hour till the bowels checked. By night his condition was much improved, the looseness of the bowels was checked and the pain was gone. He was at work again in a few days.

I could mention many other cases; these are simply given as samples and general line of treatment. I consider case two the worst I ever treated. In the latter part of the case I was giving two standard intestinal antiseptic tablets and five grains of sulphocarbolate of zinc every hour. While I am a 1906 graduate I have seen a good deal of bowel complaint. Last summer I saw a great many cases with my preceptor and have never seen a case which acted as stubbornly as this one.

I always flush out the bowels in order to get rid of the fermenting mass. No physician can disinfect an alimentary canal until it has been flushed out. For babies I use an equal mixture of equal parts of castor oil and aromatic syrup of rhubarb and for children ten years of age and older I use magnesium sulphate.

LUCIUS P. FARMER.

Elmodel, Ga.

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Doctor, your ideas are strictly all right! In spite of the "large dose of salts" which this man had taken, it is evident from the fetor of the stools and the fact that the diarrhea subsided when you personally "cleaned him out," that there was an irritating mass left in the bowel which kept up the mischief. *Be sure* your patients are cleaned out; don't leave it to their "say so." In many cases thorough cleaning out of the lower bowel with an enema or colonic lavage may be just the thing needed first of all. Once this is done, and your calomel and saline commence to get in their work, the sulphocarbolates will sweeten things up in short order.—ED.

SUMMER COMPLAINT.

Find enclosed a prescription I have used for several years with the best results. I find this prescription is about all these patients need in the way of medicaments. Forbid all foods for the first twenty-four or forty-eight hours, then properly feed on malted milk. I most generally prescribe Horlick's.

If there are cold extremities, then dry heat should be applied. Should the opposite condition exist, then cloths previously dipped in cold water should be applied to the abdomen. They should be renewed every ten or fifteen minutes until the temperature becomes normal. If nausea and vomiting are present, proscribe all foods and drinks, except two or three teaspoonfuls of hot water (not warm) from ten to thirty minutes until relieved. I never use an arterial sedative in extreme cases as I want to conserve as well as preserve the vital forces. Fever is not a disease, but the result of some offending material, and as soon as we begin to eliminate and stop the cause the temperature will gradually become normal.

Stop the cause. Stop that everlasting and eternal stuffing. Stop stuffing on improper diet that an adult cannot digest. Correct the wrong life. See that the baby is properly clothed, see that it gets plenty of sunshine and fresh air. See that its

Many men love their stomachs but only a Milwaukee medical editor boasts of one which he values at $833.45.

Milwaukee courts having assessed the value of a stomach at $833.45, how much worth is a Milwaukee brain?

sleeping apartments are well ventilated. Show me a nervous, pale, feverish baby and I will show you a baby that is not getting enough oxygen. Oxygen feeds the brain, nerves and blood. See that it gets the proper bath at the proper time. Study your patient as an individual and not as a case of mucoid ileocolitis, etc. Correct the errors in its life and you will have little trouble with these patients.

In regard to medicaments use the very best obtainable. If you were in the market to purchase a horse for a special purpose, you would not buy any kind of a horse just because it was a horse. No, for the reason that some horses are better horses than others. The same is applicable in medicine.

Now, Mr. Editor, this is my first to your journal and it may be my last, as I am not of the writing kind. Here is my prescription. You may call it polypharmacy, but it gets there just the same: Zinc sulphocarbolate tablets, 1 gr. (Abbott), no. 30; sodium sulphocarbolate tablets, 1 gr. (Abbott), no. 30; emetine grans., gr. 1-67 (Abbott), no. 30; carbo veg. (Lloyd), gr. 15; diaphoretic (Lloyd), gr. 2; bismuth subnitrate, gr. 40; cinnamon, gr. 20; sacch. pepsin, dr. 1.

M. Ft. chartae no. 30. Sig: One powder every two hours, day and night, until the diarrhea is checked and the stools harden. If a full powder should create nausea, then give half a powder every one or two hours until above results are obtained. I would like the brothers to try it as I have outlined and report results through the JOURNAL.

DAVID P. COBB.

Blanket, Texas.

APPENDICITIS IN FRANCE.

The following clippings from the daily press show that our brethren in France are alive to the appendicitis question—and that the operation is not the "last word."

PARIS, June 2.—A sensational statement was made on Tuesday before the Academy of Medicine by Professor Dieulafoy, who said that many persons merely suffering from mucomembranous or sabulous typhlocolitis are wrongly operated on for appendicitis. Mucomembranous typhlocolitis is characterized by periods of constipation and diarrhea, the ejections having certain characteristic features. There is pain in the right iliac fossa which resembles that caused by appendicitis.

Dr. Dieulafoy pointed out that it was very rare for a person to suffer from appendicitis and typhlocolitis at the same time, and in any case appendicitis is neither a cure for nor a result of typhlocolitis.

He expressed the opinion that the number of errors of diagnosis and unnecessary operations performed were ever on the increase. It had been demonstrated, he said, that mucomembranous typhlocolitis had nothing to do with the appendix, the ablation of which consequently had no curative effect whatever. It was necessary, therefore, that great care be taken in making the diagnosis, as it was time to put an end to useless surgical operations.

Dr. Dieulafoy said he was as much as ever in favor of the ablation of the appendix in cases of real appendicitis.

Dr. Doyen fully supports the views of Dr. Dieulafoy and says:

"I could cite many cases where an operation was decided upon merely because the diagnosis was insufficient. There has been a tendency blindly to decide upon surgical intervention, and operations have even been carried out on patients in the early stages of typhoid fever.

"Quite recently a child was brought to me. I was asked to proceed to an operation for appendicitis. Instead of operating I examined the child and found symptoms described to be simply due to the presence of worms in the intestines. Nevertheless, the parents were so convinced that it was a case of appendicitis that an operation was performed by another surgeon the next day."

Is a stomach worth $833.45 anywhere but in Milwaukee, and why should such a valuation be made in that thirsty city?

S. F. Whitman of Philadelphia was so scrupulous for cleanliness that he refused to pass a lot of candy because a fingermark was on the plate.

And now, after a week, comes a later dispatch from Paris, which we give below:

DEFENDS COURSE OF SURGEON.

PARIS, June 9.—Appendicitis is again one of the questions discussed by the Academy of Medicine. On Tuesday Professors Cornil and Richelot replied to a recent statement by Professor Dieulafoy against the too frequent tendency to operate in every case. Professor Cornil expressed the opinion that because the appendix has a healthy color it does not follow that a serious case of appendicitis might not ensue if it were not removed.

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This defense reminds one of the characters Major and Mrs. Major De Boots in the old play:

Major: "Madam, this auction craze is becoming unbearable—now at the last one you bought an immense door plate with the name Thompson, Thompson with a p—"

Mrs. Major: "Well, my dear, we may have a daughter, and that daughter may marry a man—a man by the name of Thompson, Thompson with a p— then, my dear, how handy it will be to have this doorplate in the house."

W. T. THACKERAY.

Chicago, Ill.

MORE ABOUT THE PLAGUE.

In your April number you have given place to my "Personal Experience With Bubonic Plague." I have nothing to add, but want to correct one fact. In the eighth paragraph I said that I was obliged to go to a *dying* plague patient. I was attending this patient four days before my own illness and during the whole course of my own illness I was giving him medicine. The first time I saw him he was in an apparently dying condition. He was not much better at my last visit. During my illness his brother used to come to me and tell me his symptoms. An hour before I became violent I had prescribed for him and my first thought after I came to my senses was about this patient. My wife, to quiet me, told me that he was dead—which I could easily believe. After my return here the man came to me in robust health.

I had no hopes for this man from the beginning. I had placed him on calcium sulphide, glonoin and strychnine arsenate; I could not spare nuclein for him. The sulphocarbolates were not used because I did not think that he would be able to swallow the mixture.

You can imagine how I felt at the man's return, and you can understand why those new to active-principle methods are so enthusiastic. When a case like this is given up by all physicians, yourself included, as hopeless, and it turns out successfully, how is it possible to check the feelings? As regards my own case I am not so proud, for it was under my own direction from the beginning, but the one now reported was apparently a lost one from the very beginning; hence I wish to trouble you for space in your journal.

VAMAN BAJI KULKARIN.

Kolhapur, India.

THOMAS'S PRACTICE OF MEDICINE.

This work is probably the best representative of present-day eclectic medicine of any single volume on practice. It is therefore of interest to all progressive physicians of whatever school or system. It bristles with eclecticism from the first page to the last, but it is the eclecticism of today in its best form and spirit, and bears little resemblance to what the most of us have been accustomed to regard as eclecticism in the past. The author tells us that the

The American Association of Medical Journal Advertisers has been formed of sanatoria for treating drug habits and mentalia.

Stirred to activity by Frenzied Finance and other things, the insurance companies are reducing the fees of medical examiners.

distinguishing feature of modern eclecticism is not that it claims to choose the best, nor even that it lays particular stress upon the use of vegetable remedies, but solely its doctrine of specific medication. And by this he explains that he means specific medicines not for specific diseases, but for specific pathological conditions.

As might be expected, the book is characterized by the large share of attention and space which it gives to the matter of treatment, as compared with most works of our own school. For example, the subject of lobar pneumonia occupies 20 pages, of which 7 are devoted to its treatment. Hare gives 28 pages to the discussion of this disease, and 5 to its treatment. Osler devotes 22 pages to pneumonia, and disposes of the treatment in three pages.

The spirit of optimism which pervades the book reminds one strongly of our alkaloidal writers, who really believe in the power of medical treatment to modify the processes of disease. The doctrine of therapeutic nihilism is equally out of place with either class of practicians.

The mechanical execution of the book is superior. It contains 1033 pages, and is published by Scudder Brothers, Cincinnati. Price, $7.00 in leather, $6.00 in cloth. We recommend it to every doctor who believes in treatment. For those who believe in Osler—that is, in Osler's ideas on treatment—it will have little interest. All others will find it good reading.

J. M. French.

Milford, Mass.

DROPSY OF THE GREAT OMENTUM; IS IT?

A year ago, the 6th of last April, one Mrs. J. B. had a lot of new frocks made, a tidy little bunch of money gathered up, and a delightful trip in view with the pleasing prospect of an ovariotomy, at the distant extremity of it. On the first of said April, All Fools' Day (note how fittingly and beautifully Providence brings things to pass if you will but have faith), I was called upon to give my opinion, not as to the possibility of an operation, but simply to state whether it was or was not an ovarian tumor.

Don't think that I am trying to pass as an expert diagnostician. I often think when I am feeling a little blue, and there's nothing left in the spiritus frumenti bottle but the cork and the smell, that I get more than my share of misses. But this is a digression; I wish it was the other. Next I want to be strictly and ethically just to the gentleman who pronounced it an ovarian tumor; he had as many or more points in his favor than I had in mine. Nothing will explain this better or briefer than to give and mark the parallels out of Thomas, on "Diseases of Women." You will, of course, understand, the points marked under the tumor heading are in his favor, those under ascites in mine.

OVARIAN TUMOR.

1. A small round tumor will have shown itself in the beginning in one iliac fossa.
2. In supine posture a rotundity is observed in the abdomen.
3. Percussion gives dulness over the tumor.
4. Change of posture alters line of dulness but little.
5. No poundings and fluctuations are noticed by vaginal touch of Douglas' culde-sac.
6. No evidences of cardiac, renal, or hepatic diseases exist.
7. Skin is normal as to color and moisture.
8. Patient rolling in bed, no wave will be detected by inspection.
9. Edema of the feet is absent until a late period.

J. A. M. A. is only a few weeks behind; the stegomyia was presented at New Orleans and accepted as genuine March 20th.

No useful purpose is ever served by telling a patient with chronic disease it is incurable and fatal.—Burdick, *Wis. Med. Rec.*

ASCITES.

1. The enlargement will have shown no small tumor at any one point.

2. In supine posture the fluid gravitates to sides of abdomen, and the abdominal surface is flattened.

3. Percussion gives resonance over abdominal surface, because the intestines float on the fluid.

4. Change of posture greatly alters line of dulness.

5. Douglas' cul-de-sac is distended by fluid which fluctuates.

6. Evidences of cardiac, renal or hepatic disease almost always exist.

7. Skin, in majority of cases, gives evidence of cirrhosis by its parchment feel and jaundiced hue.

8. Patient rolling in bed, a wave will be detected in the abdomen.

9. Edema of the feet exists as an early sign.

It is now well known that a good many of these points in the abdominal dropsy column, will be closely simulated by a cystic tumor of the ovary. Now for my reasons for thinking I have a case of that variety—omental dropsy.

My patient is 37, has three children, youngest 13. Appearance at my first call, exactly that of about the ninth month of gestation. Greatest circumference of abdomen, 44 1-2 inches. (I ought to put that in cm., but I ain't a-going to—too much work.) Now I come to my first point. My patient's menstrual functions were, I am almost tempted to say, abnormally normal. Every twenty-eight days, almost to the hour, neither too profuse nor too scant, no pain, no headache. Duration, about four days. I believe the ovaries functionate alternately; maybe I believe wrong, at any rate it looks consistent with my belief, that with the monthly periods just right, I should expect a pair of ovaries ditto. No fluctuation in Douglas' cul-de-sac, uterus retroflexed, but movable.

With patient in dorsal position, with one hand at side of abdomen, the slightest tap on the other sent a wave of fluid, which appeared to be very close to the surface. The edema settled some toward the flanks, about to what you might make a rough guess to be the lateral limits of the great omentum. Pain now and then in the right side in the region of the gall-bladder. Had had treatment two years before for liver trouble. Complexion closely bordering on icteroid. Not a sign of dropsical effusion anywhere else, no swelled ankles, no varicose veins.

After doing some hard thinking over the foregoing points, and carefully impressing the family that other medical gentlemen might have an opinion at variance with mine, and that the variance might be down at my end of the line, I rendered the following diagnosis: Dropsy of the great omentum due to hepatic insufficiency.

Of course the next question was, could I cure it? Thirty years ago I would have said, "Why, certainly," and really believed what I said. I can't comprehend what's made my knowledge shrink so; I don't talk that way now, no, not even about a toothache. I said I'd try, and I did try. I'm trying yet, been trying steadily for ten months. I am happy to be able to state, I've made considerable improvement. But I haven't cured it. I've had her girth down to thirty-three. With dire misgivings, I've watched her clamber up again to forty-four, but through it all I have kept her up and moving; she does all her own housework, milks two cows, and can lay down the law to Mr. B. fully as well as anybody with a nineteen-inch waist.

Understand me, she see-saws; sometimes she is up, sometimes she is down. Of course that up and down business settles the ovarian tumor business, at least if it don't it is the first one ever I saw, that

A running ear is a constant source of danger not only to the hearing but to health; mastoiditis, brain abscess, death.—Pratt, *Wis. Med. Rec.*

Tests of the water supply for typhoid infection at Camp Alger, Jacksonville and Chickamauga were negative.

would get smaller without the use of a surgeon. Just at present we're down, maybe after the menopause we'll stay down. What I'd like comments on is my diagnosis.

L. Thompson Clason.

Urbana, O. (R. F. D.)

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Now, brethren, the subject is open for discussion. What is it?—Ed.

PROPRIETARIES—MORE WORDS EMPHATIC.

Anent your article entitled "Another Phase of the Proprietary Question" which appeared with the June number of Clinical Medicine, we deem it appropriate to address you.

We have no panegyrizing testimonials to offer in behalf of any proprietary, neither are we prurient to read of those who have. From preference and no trepidation of wrong doing, we prefer in the chaotic controversy to be iconoclastic. To be as laconical as possible, we all know that the most opportune time to have frustrated the nostrum business was during its incipiency. But owing to the proportions it has assumed, it now requires the judicious administration of radical measures. We suggest dynamite as a phenomenal antidote, and afterward radical surgery if any signs of convalescence are manifest. "Muck-raking" is "out of order," it would be no more effective than to slap the manufacturer upon the wrist with your business card.

You probably consider me one of the "conscientious but misguided," but if so, we are perfectly satisfied with the bliss of ignorance, so far as any and all proprietaries. We are aware, too, of the fact that some of the fastidious lads, who indulge in low cut shoes, fancy hose, gaudy neckware and cigarets, will come back at us, for we, fortunately, are a country practician, and to them, know not of what we speak. But one of the things we do know is: when we visit a patient, we know what and whereof we prescribe, and to us it would appear very delectable to see all of the ostensible nostrums so completely annihilated that the profession would never again hear of them. The premonitory symptoms of their unwarranted progress were long ago visible. That is, they were unwarranted if the profession had studied their therapeutics, and why do they procrastinate about taking that long promised post course?

It is appalling, the profundity of the nostrum business, if figured from cause to effect and *vice versa*. The way they have been advertised and sampled to the laity to me is a subject worthy of consideration and very earnest thought. If a graduate of one year's experience can't extemporize prescriptions to suit his individual cases he is an idler culpably negligent, a spurious practician and most unreliable. Many physicians are decidedly perfunctory and their therapy is not felicitous. To them the practice of medicine is irksome and a text upon therapeutics too prolix. They only delight in playing checkers or telling a joke, and each day some of them are becoming professionally moribund.

There are (in our opinion) entirely too many followers of that therapeutic nihilist, Osler, and the following are equally pessimistic. Brilliant diagnosticians perhaps, but they usually confirm their diagnosis upon the post mortem table. We would prefer to see things more equate, for without therapeutics of what consequence is a diagnosis? Posit study vs. nostrums, is a boon to the $1,000 practician and I opine he will be more optimistic if he tries it. It matters not whether he is just out of school or has practised for thirty years, he should study.

If some of these old fossils harbored any

At Jacksonville, Chickamauga and Camp Alger, the fly was an agent in the dissemination of typhoid fever.—Vaughan.

Typhoid followed troops till a thorough disinfection was made of tents, blankets and personal clothing.—Vaughan.

idea of a Utopia, had as much ambition to attain it as they do to get a fee, and would utilize their library and occasionally take a post course they would create a prophylactic for nostrums and be more propitiously inclined toward their intrepid adversaries. The good is interminable that may be accomplished by the study of materia medica and therapeutics and the rejection of proprietaries.

So long as any proprietaries are tolerated by any of us, many proprietaries will be prescribed by many of us. Because there is a class of physicians who will neither read nor think as long as any one else will do so for them, one will hear them say: "Study anatomy, physiology, pathology, bacteriology diagnosis, etc., and when the latter is made one can get the treatment from any text-books."

We deny this most emphatically; if successful treatment is anticipated, one might as well read the almanac and give KI to every patient he treats, for we never find typical cases and if we did it would be of little consequence so far as successful treatment is concerned, for every case of necessity must be treated according to its own indications and the characteristics and idiosyncracies of every patient will always require a great deal of study and the appropriate application of these general principles suggested in the texts, of which hygiene in its broader sense will play no small role.

The tendency with many in practice is entirely too much toward routine, and it can only be eliminated by work. Knowledge is not unconsciously absorbed, and to keep up with the knowledge of medicine one must use new texts and good journals. If legislation should suddenly prohibit the sale of nostrums, within twenty-four hours the leaves would be turned and the dust brushed from thousands of texts on therapeutics, which for years have been shamefully neglected. Is this not enough to cause the progressive, energetic element of the profession to rise en masse against nostrums? Let us remove the temptation. We consider any physician who would prescribe the like of antikamnia, as one unworthy of his hire who should have his license revoked. And thus we would lay a foundation for the upbuilding and if our sentiments are not cogent enough we hail with delight those who are ready and able to extend a helping hand. But we anticipate no sycophantic reply from the exclusive proprietary following and we desire none. But we most fraternally submit our views to the profession whether they acquiesce or censure.

HALFORD J. MORLAN.

Ludlow, Ill.

—:o:—

We are glad to give the doctor a hearing on this most important question. In one thing, at least, we are agreed—the importance of more study of therapeutics. This undoubtedly is, as we have so often said, the key to this difficult problem. When the doctor thoroughly knows his remedies he will not be inclined to pin his faith to things of uncertain or mythical therapeutic action. Furthermore, he will learn that many of the galenics are just as uncertain, sometimes much more so, than many of the proprietary mixtures—and will betake him to the alkaloids! How can it be otherwise, especially when it is recalled that very many of the official remedies are old proprietary nostrums which in their old age have reformed and been admitted into good society?

But the wholesale condemnation of proprietaries we disapprove. Would the doctor refuse to prescribe adrenalin, or sulfanol, or cocaine, because they were not official? Many of the admittedly most valuable remedies we have are or have been patented

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Dear On-the-fence: The cat has jumped down on the side of intestinal antisepsis and the active principles. Hurry up!

Disinfection is just as necessary after typhoid as after scarlet fever or diphtheria or other contagions.—Vaughan.

and proprietary. Even such common remedies as aromatic spirit of ammonia and Dover's powder were once nostrums. By all means let us all study unceasingly to improve our materia medica, but in the meantime we cannot afford to reject *any* good remedy, proprietary or not.—Ed.

THE BRIGHT NEW SIGN.

He hoped to graduate in June and was visiting his preceptor during Easter recess.

"Now what would you suggest for a sign when I start in," he asked.

The old doctor's eyes sparkled. "Speaking of signs," said he, "reminds me of something that happened when I was in college."

"What was it," asked the young man.

"Well it was this way. Our professor of Practice was an enthusiast about iodide of potassium. He thought a lot of it and prescribed it and urged its use continually; and let me tell you, my boy, in my twenty odd years of practice I have found it would do as much or more than he said it would. It's a mighty good remedy and no mistake.

"However, the professor was droning along one day and in the course of his lecture he said: 'Young gentlemen you will soon graduate (that is some of you will) and each will set up an office. For the first few months you will be anxiously looking for patients. Some fine day, as you are looking up the questions on which you failed at quizzes, a man will come along and be suddenly attacked with cramps, or in plain old fashioned words he will have the bellyache. Attracted by the glitter of your bright, new sign, he will rush in for relief. Now gentlemen what are you going to give him?'

"Without a moment's hesitation, the whole class shouted: 'Give him iodide of potassium!'

"The old professor looked over his glasses and smiled. Said he: 'I haven't a doubt of it gentlemen. Judging from the asinine answers some of you have given in your written exams, I believe you would. But after all you might do worse. There is strychnine, and arsenic, and carbolic acid, anyone of which you might give him, but you have decided to give him iodide of potassium and we will rest easy knowing that it can't hurt him, and perhaps you'll get a call at his house later, after you have had time to study up and find out what to do for him.'

"Pretty good, doctor," said the young man, "but how about that new sign. Now I've thought of having mine painted and hanging it out in the woods somewhere so it will get old and rusty looking, then when I start, folks will see it and think I've been in practice for years. Now what I want to know is, what shall I put on it?"

"What had you thought of putting on it?"

"Well," said the young man blushing, "How would Frank Waldo Black, Physician and Surgeon, look?"

"Can't say, I've never seen him."

"Oh, let up Doc, I'm nervous enough about passing anyway."

A reminiscent look came into the doctor's eyes: "I remember a sign I once saw that struck me forcibly. It was neat and not gaudy. This was it: 'John Smith, Physician and Surgeon, Specialist in Diseases of the Eye, Ear, Nose and Throat. Particular Attention given to diseases of the heart, lungs, liver and kidneys and diseases of women. Teeth extracted.' How does that strike you?"

"Not for mine," said the young man.

"Very well. You proposed 'Physician and Surgeon.' Are you a surgeon?"

"Confound it, no! and neither were you when you graduated, were you?"

"I never pretended to be; look at my

Typhoid fever is not only infectious but contagious in the ordinary acceptation of the term.—Vaughan.

How many physicians make themselves active in the suppression of diseases conveyed by insects?—Cobb.

sign." The young man read, "Doctor Ketchum."

'Well, you have done lots of surgery haven't you?"

"I certainly have. Circumstances have forced me into it, and I operate when I have to. I knew my anatomy pretty well and a good deal the books taught about surgery. It is likely I did better than a carpenter would at operating, but, without actual practice I don't think I was much of a surgeon when I graduated."

"Perhaps you weren't much of a physician either when you graduated," said the young man slyly.

"Perhaps I was not," said he, "I remember an old lady once asking me if I wasn't a 'kind of a doctor'; but at any rate I was more of a physician than surgeon, which after what I have said, isn't throwing bouquets at myself."

"Well, but about the sign. We will amputate the 'Surgeon' and now it reads 'Frank Waldo Black, physician.'"

"Too heavy at one end, I would say. What do you suppose a sick person cares whether your name is Frank Waldo, or Harold Percival. Chop off the Frank Waldo."

"Very well (with a sigh) the decapitation is neatly done. That leaves us, 'Black, Physician.' Looks fine, doesn't it?"

"Might do in the Phillipines or Africa; cut off the physician and make it 'Doctor Black.' Lots of people, foreigners and natives don't know the meaning of the word physician, but you can rest assured they all know the word, 'doctor' and the plain doctor knows all the people sooner or later. The sign, therefore, will read: 'Doctor Black.' Hang it out in the woods and let it season by all means if you wish to; but my son after you have begun to 'get busy' the seasoning process will go on rapidly and you will find its operation has not been confined to your sign, let it hang where it may. If Doctor Black uses his patients 'white,' and applies the same rule of conduct toward every man, woman and child in his community, he will succeed, sign or no sign."

"Thank you, Doctor. Let me see (reflectively) your name is Ketchum, isn't it?"

"That will do, Frank" (laughing). Goodbye. I will be on hand Commencement day to see you do yourself proud."

A. H. S.

——, New York.

GOITER—HOW DO YOU TREAT IT?

Will the readers of Clinical Medicine give me their medical treatment of goiter and their per cent of cures? I desire to prepare a paper for the county society in Allen County, Indiana.

C. W. Gordon.

Ft. Wayne, Ind.

HOW DOCTORS CAN HELP BURNED-OUT BROTHERS.

In common with all classes the San Francisco doctors were heavy losers in the great fire of last April, many losing everything they had in the world.

While many insurance companies are disposed to act fairly, some have shown a disposition to evade as far as they dare a large share of their just obligations. Every doctor in the United States can be of material assistance to his burned-out San Francisco brothers if he will let it be known that he will not hereafter patronize an insurance company which does not do the fair thing by the San Francisco doctors.

The American Journal of Clinical Medicine will be glad to help by reporting such unfair insurance companies. Every San Francisco doctor treated unfairly by any

The fly will tackle anything to eat or drink from typhoid soup a la Chicago to sputum jelly a la t. b.—Cobb.

In cholera, flies become the medium of infection by planting the vibrio upon food by feet, wings and dejects.—Cobb.

insurance company should report the facts to us or to our Western subscription agent, Mr. S. J. Platt, 1361 Franklin Street, Oakland, Cal.

CANCER OF CLITORIS.

Dr. C. F. Roh, of Germantown, Nebraska, writes: "I am preparing a paper on 'Primary Cancer of the Clitoris.' I have as yet not been able to find any cases in American medical literature (have found some in French and German works.) May I ask you to ask your readers through your magazines to send me authentic reports of the above-named disease, including manner of treatment, results, microscopic examinations, etc. Due credit will be given to each report.

This is a subject of considerable interest and we trust that readers of the CLINIC may be able to supply clinical data so that the article may be as complete as possible.—ED.

MY FIRST EXPERIENCE WITH ALKALOIDAL MEDICATION.

In the summer of 1896 or '97, in looking through a sample copy of THE ALKALOIDAL CLINIC, I read an article on the treatment of typhoid fever which impressed me very favorably; not so much the treatment (although the treatment was entirely new to me), as the flattering results claimed.

The first suggestion was thorough elimination, followed by the administration of a combination of the dosimetric trinity (aconitine amorphous, gr. 1-134; digitalin, gr. 1-67 and strychnine arsenate, gr. 1-134), and zinc sulphocarbolate, to be given in solution, one granule of the former and 1-2 grain of the latter (the adult dose) to a tablespoonful of water.

We were having considerable typhoid at this time; so I decided to try this treatment as soon as I could obtain the preparations. I made my first order of The Abbott Alkaloidal Co., ordering 200 of each preparation. In a few days after receiving the drugs I was called five miles south to see a young lady, 18 years of age. From my examination I diagnosed a probable typhoid fever, gave the eliminative treatment at once, and then made up a 4-ounce bottle of the mixture, ordering them to begin it after free purgation, one tablespoonful every two hours during the day and every three hours during the night; with each dose during the day I gave a 2-grain tablet of quinine bisulphate. The quinine was kept up for three days; then, seeing little or no effect on the temperature, it was discontinued.

This treatment was continued for fifteen days, at which time the temperature dropped to the normal point, and tonic treatment was substituted. During the illness an occasional dose of salts was given and the body sponged when the temperature was high.

The progress of the case was so satisfactory that I made only seven or eight visits in the fifteen days. About one month after the case was dismissed her mother called at my office to settle the bill, and after doing so she inquired of me how much was due the druggist for medicine. I informed her that she owed him nothing, and she replied that in all previous sicknesses her drug bill had usually been about half the doctor's bill, sometimes even more.

I am still doing their practice (that being my first case in the family), of which they have a great deal, and in treating typhoid fever, I am still using almost the same treatment with satisfactory results.

O. P. SWEATT.

Waxahackie, Tex.

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How many men there are who, like Dr. Sweatt, try the alkaloidal methods in a

Sporadic typhoid fevers in country settlements are more often the results of fly infection than of water infection.—Cobb.

The greater sources of infection by the tubercle bacillus come by the fly planting sputum on food from wings, feet and dejecta.—Cobb

doubting, experimental kind of way, in a single case, are surprised at the unexpected success of the new method—and follow it ever after! All we ask is that men should try—earnestly and intelligently—we have no doubt as to the result after that.

The eliminative and antiseptic method of treating typhoid fever is not guesswork. It is a *successful* method which has been adopted by thousands of physicians, who swear by it because they cure their patients—patients who under the old expectant method had the bad habit of dying on the doctor's hands. The doctor does not need to consult a nihilistic text book to tell the difference between the old ways and the new. He knows!

The "clean-out" methods need to be emphasized. While the sulphocarbolates are indispensable, we can not expect them to disinfect a bowel loaded with an accumulation of stinking, poison-breeding fecal matter of many weeks' accumulation. Get rid of this first. Clean out with small repeated doses of calomel, podophyllin and bilein or whatever else may be necessary, taking care to flush the canal sufficiently often with a saline — granular effervescent magnesium sulphate preferred. In many cases you will need to resort to enemata, possibly to the long colon tube, to entirely unload the lower bowel. This done, come on with the sulphocarbolates. Do not be afraid of them. Give them "to effect," according to the alkaloidal rule, the disappearance of the horribly fecal odor from the stool being the sign of sufficiency. And then keep them up! The bowel must not only be disinfected, but must be kept so. In most cases the combined salts, sodium, calcium and zinc, called the "intestinal antiseptics," best meet the indications, but, if diarrhea troubles, zinc sulphocarbolate is indicated; in constipation the sodium salt; while in others the reconstructive properties of calcium may be especially needed. Fit your medication to your case every time. No hit-or-miss about this.

In many, perhaps most cases the "trinity" is needed; it depends on the amount of fever and the patient's strength. Here, again, adapt your medication to the case. And that, after all, is the essential thing—to treat the patient, varying food, hydrotherapeutic measures, medicine, everything, to meet individual requirements. But let the underlying principles of elimination, intestinal and general antisepsis and systemic support run through it all. For instance, most cases will need strychnine arsenate and nuclein at some time in their course; others will need hepatic stimulation to aid this important protective gland, the liver; others will require nervous sedation to husband the strength. There are numerous modifications of the treatment of this important disease that will suggest themselves to and be adopted by the careful observant clinician, but with it all, if not almost above all, see to it that your tools (drugs) are keen-edged and exact, always the same, never failing in their *ability* to produce the results desired and then *push them until they do it!*—Ed.

ACID FERMENTATION AND NEURASTHENIA.

In an interesting paper in *American Medicine* Dr. J. Wirt Robinson disagrees with the textbook statement that neurasthenia "is an impoverished condition of the nerves." As he shows by an interesting experiment, it is the muscle which is exhausted, not the nerve. The work of Loeb and Zoethout shows that the readiness with which a muscle responds to stimulation depends upon the ratio between the

Diphtheria may be conveyed by flies if they have a chance to pick up the infection from the mucus. Cobb.

E. T. Dobbins who entered the Wyeth firm during the civil war left personal property valued at over two millions.

K-ions and calcium salts in the nerve. The potassium salts, for instance, have been credited by Bouchard with causing convulsions when retained in uremia; perhaps their failure to do this in certain conditions is due to the presence in the system of a sufficient amount of calcium to prevent their toxic action.

It has been shown that in neurasthenia there is increased elimination of calcium; while analysis made by Dr. Robinson shows that invariably there are a large number of oxalate crystals in the urine in this condition. Tracing the oxalic acid to its origin, the author concludes that most of the oxalic acid depends upon pathologic fermentation in the stomach. It is contained in small quantities in acid from fruits and vegetables and oxalic acid fermentation is caused by the saccharomycetes. Much of the oxalic acid is undoubtedly precipitated by calcium in the bowel, and part of it is arrested by the liver. Probably most of the acid that is absorbed as an acid, or as a sodium salt, unites with calcium in the blood, while if the quantity is large the nerves as well as other tissues would be robbed of a portion of their calcium, and as a result the equilibrium of salts would be impaired and their functions disturbed.

In treating neurasthenia therefore Dr. Robinson advises the use of a diet free from oxalic producing substances and sweets and sour articles generally. Calcium is administered, not only as an antacid, but to combine with the oxalic acid so as to form non-absorbable substances, while at the same time supplying the tissues with a substance essential for proper balance; the potassium and other toxic substances otherwise being in excess.

This interesting theory helps to explain the remarkable efficiency of calcium and its salts in nervous and other diseases characterized by disorders of metabolism. The phosphates, lactophosphates and hypophosphites of calcium have long been considered valuable in conditions of nervous weakness, while recent investigations have shown that the remedy has peculiar efficiency in uric acid and rheumatic state. It is to be hoped that Dr. Robinson will follow up his investigations along this line.

A FEW MORE "EXHIBITS."

The JOURNAL for June is "chock" full of good things and so far I have only been able to glance over its pages. One article that attracted my attention was a "Curious Clinical Contribution" on page 817, by J. L. S. This brought to my mind recollections of some letters I received a few months ago, copies of which I am sending you herewith. They are copied verbatim, punctuation and spelling.

EXHIBIT NO. 1.

Say doctor—

My both side is hurt. and also. My left thigh. and some place like a did yesterday. Pain all over in four places. That is all no easy about it. and not sleep well. bowels is ood acting, loss of appetite. This is aboug all also no fever;

Your Truly friend.

E. H.

Sick woman. per. name to it. S. F.

EXHIBIT NO. 2.

Doctor—.

I think you better come down and see my wife. she is easy but no better. don't be afraid me. I will sure pay you. and I want you to come down. She is stopped throwing up but somethink is happent yet.

Your Truly friend.

E. H.

This was written by an educated Choctaw Indian and the funny part of the first one is that he was writing for the woman "who was sick." It makes the note read rather peculiar, but as I had been there the day

Digitalis and aconite leaves, English, are worth at retail $2500 a ton. Better crop than hay, for the Northwest.

Some drug action we explain chemically, some mechanically, some by brain cell atomic theory, some not at all. Fitzpatrick, I. M. J.

before and had instructed him to notify me of the patient's condition I readily understood it. We have some very peculiar experiences in this country practising medicine and after a while I will write them up and send them in.

JESSIE BIRD.

Tupelo, I. T.

Another member of the family, who has also had "experiences," sends the following additional contribution:

Looking over the copy of CLINICAL MEDICINE for June I was interested in "Curious Clinical Contribution." While I think of it, will send you "another exhibit" to go along with Nos. 1 and 2 of J. L. S., (page 818). We country jakes get more fun to the square inch than you fellows do in a whole block.

EXHIBIT NO. 3.

(Dr. Campbell)

sharp pains going throw my head.
Kidney ache very bad.
pain under shoulder blads and throw chest and lungs
hip ache
tired wear out feeling
nervor make bad feeling in hands, ankles ache
joints seem to get stiff
if I set still very long at time hands and feet swell a little pain in heart

Oblidg Mrs. D.
Richmond Center, Wis.

A. D. Campbell

—:o:—

Thank you for this specimen. We have practised in the country too, Doctor, and we know what peculiar things patients will do and say. Your individual does not begin to compare with the lady "who had a pain in the house on the other side of the cemetery fence where the white horse gets its hay and the water flows freely."—or something of that kind. We are anxious to hear what subsequent symptoms this individual develops. There certainly ought to be a fine "collection."—ED.

HUMAN HAIR IN THE STOMACH.

Two years ago I was called to see Eunice Deaton, aged seven years. She was suffering from severe vomiting, her bowels were costive, but there were no other marked symptoms. I found the stomach very hard, and easily outlined on account of the hardness. The patient vomited everything put into stomach for four or five days. I gave all sorts of medicine with the hope of quieting the vomiting and reducing the size of the stomach. Nothing did any good; but finally she got up and around.

Every two or three months for these two years she would feel fairly well; then a spell of vomiting would come on and end about as the first one did. Still there was no change in the hardness and size of the stomach. I had a number of consultations and every one had a different diagnosis. Some said cancer of the stomach, some enlarged spleen, etc.

About Jan. 1 the child had the worst attack of all; nothing passed through stomach for six or seven days. Everything was thrown up as soon as swallowed. Bowels would not move from the usual purgatives, seidlitz, salts, etc. Finally I left off everything except castor oil, one-half ounce every three hours. When I had given about four ounces, human hair began to pass in great rolls, two inches in diameter and eight inches long. Fully as much passed as any two year old child has on its head. The tumor is all gone and child is entirely relieved and is now gaining flesh rapidly.

The mother now remembers that five years ago she cut the child's hair very short to break her of eating her own hair. The manner of eating it was to pull it out and

Dog oil is said to be exported to Europe for use in supplying pure olive oil with which to pack sardines. Wow!

London bakers knead bread with their feet, which are *said* to receive a bath before the operation is commenced.

eat it. The child acknowledged now of hiding out and eating a great deal of the hair, but says she quit it when her mother shingled her hair, so it has been in the stomach five years.

In my awkward way I have told of this case. If it is as new to you as to me you may want to publish it. If so, would be pleased to see it in CLINICAL MEDICINE.

S. S. RATHER.

Jacksonville, Tex.

—:o:—

This is an interesting and curious case. The tolerance of the stomach for foreign bodies is often remarkable. Insane and hysterical patients often make a regular museum of it, swallowing nails, tacks, pins, glass, and anything else which comes handy. The eating of hair is quite frequently reported and is a strange perversion of appetite. Have other readers seen similar cases?—Ed.

NOT READY TO BE OSLERIZED.

The change in the JOURNAL is an improvement. I stopped the JOURNAL as well as all other medical journals a few years ago; went to California to get rid of work. But on returning I find there is only one sure way to quit and that is contract pneumonia and call in some eminent diagnostician, hear his opinion—turn the face to the wall, and say, I hear and obey.—*Rot!*

As you see, I am 72; perhaps I had better instead of sending for the JOURNAL consult Prof. Osler, and take his chloroform remedy. Oh! Lord, not just yet.

Permit me to say in regard to your treatment of pneumonia, March JOURNAL, I would never give digitalis without the joint use of caffeine. The two united will never raise the blood pressure to any great extent. In pneumonia we all feel how important it is to keep up the nutrition of the heart and to do nothing that will lessen coronary circulation. Hence the great advantage of combining digitalin with caffeine.

L. W. ESTABROOK.

Springport, Ind.

ZINC PHOSPHIDE.

In the January number, page 107, I noticed an article on zinc phosphide. I use many thousand tablets of same each year, however usually in combination with nux vomica. In atonic dyspepsia it seems very useful. In peripheral neuritis equally so. Also, in cases of anterior myelitis. It seems to be a vasomotor tonic, or vasohypertonic.

A few words in one case will at the same time show effect produced by long usage. Some years since I saw an elderly gentleman, sanguine temperment. He had varicocele, till the scrotum was the size of a gallon measure and he could scarcely walk or close the trousers. He was fast being exhausted by the burden. He had tried many things for fifteen years or so. I put him on tablets zinc phosphide and nux, 1-10 gr., two tablets each meal. After continuing the same for about a year I examined the patient and found no trace of the varicocele, the scrotum was of natural size. The preparation seems to be such a tonic, that this man requires it nearly half the year, and he seems to have regained ten or fifteen years of his youth.

J. E. WILSON.

Butler, Ky.

TWO GOOD OPENINGS.

Two good openings for alkaloidal doctors have recently been called to our attention—one in Texas and the other in Utah. The right kind of man can step into a lucrative practice in either place, with little or no outlay.

Our packers may be less particular than they should be as to cleanliness but possibly there may be others.

Perhaps it is just as well that we do not see all that goes on in our own kitchens while meals are prepared.

AMONG THE BOOKS

HUBER'S "CONSUMPTION."

Consumption: Its Relation to Man and his Civilization; its Prevention and Cure, by John Bessner Huber, A. M., M. D. Publishers, J. B. Lippincott Company, 1906, $3.00.

There is no subject in medicine more intimately connected with the morals of our civilization than is that of tubercular consumption. Morals mean the generally approved habits of life, and civilized life is necessarily social, and so the two subjects touch each other here dovetailingly. No civilized man lives by or off himself; certainly not the poor and still less the rich. Nor does a civilized man often even die by his own fault, not even when a suicide, without the morals of our civilization contributing to it more remotely or proximately.

Tuberculosis is half or more promoted by our civilization and morals, and these are often hindered by the consumptive deaths of some of their best promoters. And tuberculosis will never be reduced to a negligible extent by the best of our medical efforts without the help of a changed morality and civilization for the better.

Towards these heaven-crying needed changes the book of Dr. Huber will be found a mighty help for the thinking physician and layman. His book is the careful product of a man widely cultured in the letters, arts and sciences of many nations, an active physician of rare discriminative powers of observation, making him a safe generalizer. Withal, too, the author is neither an idolator nor an iconoclast of either science or religion, as the manner of some narrow, self-sufficient ones in these departments of life. His mind and heart too well balance each other, and therefore he sounds neither the vanishing echo of the alarmist nor the indolent notes of the "let-aloneist." Therefore, we, the less endowed ones, should listen attentively to every page of his book, wherein he places so clearly before us the causes, effects and remedies of consumption.

A word of ours as to the present selfish greed standing in the way of eradication and often in promotion of consumption. Has not our morality become too greatly scientific, materialistic, and almost ungoverned by the invisible powers of the world to come?

BURNEY'S "MANUAL OF MEDICAL TREATMENT."

A Manual of Medical Treatment, by I. Burney Yeo, M. D., F. R. C. P., 14th edition, two volumes, 7½ by 5 inches, published by W. T. Keener & Co., Chicago, $5.00.

While this work is that of an English author, it is as useful to the American as it is to the British physician. The differences in the practice of medicine of different countries are getting small enough to be negligible. This is the case with Yeo's work before us. The author is succinct, comprehensive, simple and clear. He is neither neophilic nor neophobic, and so he is a safe guide and counsellor. His symptomatology, etiology, and diagnosis are sound and good for physicians of all schools, and provided they are thinkers and not foot-step treaders, Yeo's medical therapy, too, can be translated from the galenic into the more safe, sure and agreeable alkaloidal

practice. The small size of the volumes and their make-up make the work mechanically attractive.

FRUEHWALD'S "DISEASES OF CHILDREN."

Reference Handbook of the Diseases of Children, by Dr. Ferdinand Fruehwald of the Vienna Polyclinic, edited with additions by Dr. T. L. Westcott of the University of Pennsylvania.

Among our many valuable books, general and special, on pediatrics, this reference handbook deserves to take the place as a most valuable and time-saving encyclopedia. As such it will, of course, not be sufficient in the prosecution of an exhaustive study on any important pediatric subject. But for the well-read pediatrist, as well as for the student of pediatrics, the book, as a rehearser for the one and an indicator for the other, is very recommendable. The translating editor added a good many valuable items. If this comes to his notice we would thank him to tell us what is "*halleriodsalz*," or "*halleriodwasser*," and what salts he had in mind when he wrote "saline solution," all these on page 22. Is it Brunnengraeber's *jod heilwasser?*

Publishers, W. B. Saunders Co., Philadelphia, 1906, $4.50.

BRICKNER AND MOSHOWITZ'S "SURGICAL SUGGESTIONS."

Surgical Suggestions; Practical Brevities in Diagnosis and Treatment. By Dr. Walter M. Brickner, Chief of Surgical Department, Mount Sinai Hospital Dispensary; Editor -in-Chief, *American Journal of Surgery*, and Dr. Eli Moschowitz, Assistant Physician, Mount Sinai Hospital Dispensary; Editorial Associate, *American Journal of Surgery*. Published by the Surgery Publishing Company, 92 William St., New York. Price, 50 cents.

Readers of the *American Journal of Surgery*, and all others who have enjoyed the admirable "surgical suggestions" which have appeared monthly in MacDonald's ably edited and progressive publication, will be pleased to know that these have been collected, classified, and finally reprinted in book form. The little volume before us is in every way admirable: Typographically it is an *edition de luxe* in miniature; the items are collated in a form which renders them very easy of reference; and the material itself, though very much condensed, supplies just the practical facts of which the busy physician stands most in need in cases of emergency. We congratulate the authors upon their success in getting together such a splendid collection of "practical brevities" and the publisher upon the quality of his first venture in book publishing. We heartily urge every reader of CLINICAL MEDICINE to secure a copy of this little volume.

TWO GOOD NOVELS.

We have recently received two interesting novels written by "Orr Kenyon," which, by the way, is the pen name of a doctor, a member of the CLINIC family and an occasional contributor to our columns.

"Amor Victor" is a story of Rome and Ephesus during early Christian times. It is a book of sustained and intense interest, in our opinion rivaling Quo Vadis. The persecutions of the early Christians, the luxurious and sensuous life of the times and the degeneration into which religion had fallen before the advent of Christianity are clearly depicted. A love story of surpassing interest runs through it all. Frederick A.

Getting down to brass tacks, are we sure of the cleanliness of any food unless it be boiled eggs?

This agitation anent clean food should put dough into the pocketbooks of the aerated bread bakers if they are smart.

Stokes Company, New York, Publishers. Price $1.50.

"What God Hath (Not) Joined," is another good story by the same author. This deals with a modern problem—the divorce question. The subject is handled with frankness, yet in a truly reverent spirit. His conclusions are different from those of many of our religious leaders, but they must appeal to the better judgment of the fair-minded man. Like the preceding book it is exceedingly well written and carries a love story which will appeal to every sympathetic reader. Dodge Publishing Co., New York. Price, $1.50.

BRICKNER'S "SURGICAL ASSISTANT."

The Surgical Assistant. A Manual for Students, Practitioners, Hospital Internes and Nurses. By Walter M. Brickner, B. L., M. D. Published by the International Journal of Surgery Company, New York, 1905, $2.00.

We prepared a review of this excellent and in its sphere indispensable book before our great fire in November of last year. Our words went up in flame, but not our good wishes for the book. We have been made aware of the fact and hasten to remedy it as best we can.

TABER'S "MEDICAL DICTIONARY."

Taber's Pocket Encyclopedic Medical Dictionary. Edited by C. W. Taber, Assoc. Ed., Nicholas Senn, M. D., Ph. D., etc., Chicago, U. S. A., 1905, $1.50.

This book is 6½ by 3½, flexible leather bound, rounded corners and gilt. The conception of the book is admirable. We are inclined to call it a descriptive index rerum. Apart from the 2119 medical terms succinctly yet efficiently elucidated, it has pages devoted extra to: Massage, Electricity, Operations, Surgical Instruments, etc., Diagnosis, Examination, Discolorations, Fractures and Sprains, Hemorrhages and Wounds, Emergencies, Nerve Plexuses, Muscle actions, origin and insertions; also Equivalent Latin Terms, Food Analysis, Weights and Measures, Medical Laws in States of Union, and Cross Index. Once get familiar with this little *multum in parvo* and you will have an invaluable servant of memory.

SCHMIDT'S "TEST DIET."

The Test-Diet, by Prof. Dr. Adolf Schmidt, of the City Hospital, Dresden, Germany. Translated by Dr. Charles D. Aaron, of the Detroit Post-Graduate School of Medicine. Published by F. A. Davis Company, Philadelphia, 1906. $1.00. The object of this monographic essay is, as the title says: "The examination of the function of the intestines," its application in medical practice and its diagnosis and therapeutic value. We now know considerable of diseases of the stomach since the test breakfast has been introduced into practice, but of intestinal disease we hitherto have known only from what the general discharges are, without control of the ingesta for the purpose of testing. To do, therefore, for the intestines what has been done for the stomach is a worthy task, and this is what Dr. Schmidt had set before him. The task is not an easy one, and the book before us, a guide in this almost unknown region, will be found very useful.

SOME VALUABLE LITTLE BOOKS.

A Compend of Obstetrics by the late Prof. H. C. Landis, Edited by Dr. W. H. Wells, eighth edition, illustrated, forms one of

Ladies used to say they liked to knead bread cause it made their hands so beautifully clean. as it *all* a joke?

May be that our stomachs have become so accustomed to dirty food that they would fail to manage the clean stuff.

Blakiston's Son & Co's. Quiz Compends, and keeps the happy mean between too much and too little, good enough to pass a creditable examination on the subject. Philadelphia, 1906. $1.00.

Essentials of Genito-Urinary and Venereal Diseases is number thirteen of Saunders' Question Compends, arranged in questions and answers, by Prof. Starling J. Wilcox. Illustrated. It is full and thorough. Publishers, W. B. Saunders Co., Philadelphia, 1906. $1.00.

Introduction to Materia Medica and Pharmacology by Prof. O. T. Osborne, of Yale University, includes Prescription Writing, Medical Latin, Toxicology, and Methods of Local Treatment. In the space of 167 pages 12 mo, there is here condensed a clear statement of things indispensable to the medical student and practician. A very recommendable introduction. Publishers Lea Bros. & Co., Philadelphia, and New York, 1906. $1.00.

Skiascopy Without the Use of Drugs, is A Practical Treatise for Optometrists, by R. M. Lockwood, author of many books on practical optics. The book is sufficiently illustrated and well adapted for practical work. Publishers, Frederick Boger Publishing Co., No. 1, Maiden Lane, N. Y. 25 cts.

The World's Anatomists, by J. W. H. Kemper, M. D. With Eleven Illustrations, Nine of Which are Portraits, is published by P. Blakiston's Son & Co., Philadelphia, 1905. 50 cts. A booklet every cultured physician and surgeon will enjoy.

Walking for Exercise and Recreation, i. e. not running to get out of breath just to catch the train and be half a minute in time to see the tail end of it. It seems we have to learn to teach people how to do things they and we practised all our life time. Send for the booklet, price not asked and see the truth for yourself. Publishers, The Health-Culture Company, 151 W. 23d St., New York, Author, W. R. C. Latson, M. D.

PAUL'S "NURSING IN INFECTIOUS FEVERS."

Nursing in the Acute Infectious Fevers, by Geo. P. Paul, M. D., of the Samaritan Hospital, Troy, N. Y. Illustrated. This book will be a very useful addition to the nurse's library, especialty to one who makes a specialty of nursing fever patients, whose attention is exacting both for patients and their surrounding family. Publishers, W. B. Saunders Co., Philadelphia, and London. 1906. $1.00.

BARTON'S "INTERLUDE."

An Interlude, by Catherine Josephine Barton, is high poetry in splendid prose. It contains four pieces. (1) Ma Rose La France; (2) The Subtlety and Assumption of Personal Magnetism; Is Divorce a Mistake; (3) Amour fait Beaucoup (Love Does Much); (4) A Beatitude Made Practical.

I take the word "interlude" to mean a play between, i. e. between harder mental work. The thinking physician cannot rest from his thinking work, but he can rest by changing off from harder to easier thinking. At such a time take up "An Interlude" and it will soothe you. It did me. It is beautifully printed. Write for it to the author, 3332 Troost Avenue, Kansas City, Mo. 50 cents in paper cover, and $1.50 in silk velvet.

Possibly we have eaten our peck of dirt many times over; but we seem to be a pretty husky lot nevertheless.

Dr. Burdick says the sanatory arrangements at the shredded wheat factory were simply ideal when he visited it.

CONDENSED QUERIES ANSWERED

PLEASE NOTE.

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

Answer to Query 4999. In Clinical Medicine for April, Query No. 4999, I note your answer to "H. E. M.," *in re*, "What is Enzymol?" I don't know much of the "ols," either enzym-ol or euar-ol, but I do know that the so-called "enzymol," a "sterile tissue digestant" manufactured by Fairchild Brothers and Foster, New York, is pretty nearly what its name implies. It has done wonders for me in my work as a venereal specialist. I notice that it is again recommended in answer to Query No. 4699 in the May number.

A. Sidney Reynolds.

Philadelphia, Pa.

Answer to Query 5013.—If H. G. L. will give his patient from 1-6 to 1 grain of calcium sulphide three times a day, alternating every two weeks with nuclein, of course keeping bowels open and aseptic, he will find that he will never have any trouble with hypertrophied tonsils; that is to say, if the hypertrophy be a simple one of the tissue itself and not due to poisons, bacteria, etc., absorbed by the gland. I have frequently given this combination in these cases where everything but an operation for the removal of the tonsils had been despaired of, and always with unvarying success.

This treatment will also benefit and improve any case of adenoids or "snuffles," commonly found in children of catarrhal tendencies.

W. P. Barron.

Rusk, Texas.

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Answer to Query 4961—On page 409, J. E. H., Texas, asks for best treatment for granulated eyelids. In answer to his query it seems to me you left out the most important point. You will find in such cases to give five-grain doses of potassium iodide three times a day, and a very mild treatment to the lids will work wonders in a short length of time. I am very much opposed to using anything but mild treatment to the mucous membrane. It generally leaves a weakness that is never overcome by any treatment. I have treated many such cases with the most satisfactory results by the above treatment.

W. L. Kreider.

Prairie City, Ill.

QUERIES.

Query 5063.—"Stomach Trouble." For months my wife has been suffering with nervous prostration, fourteen weeks in bed, and now is suffering from extreme exhaustion. For several days she has had severe ptyalism; the cause I do not know, but not any medicine—it followed an extremely sour stomach, and that also keeps up. She had been for years constipated, and suffering from retained poisons. Liver, stomach, and bowels sore and inactive; kidneys, part of time, doing pretty well. She has fallen

off from 180 pounds to about 125 or less. Is now suffering with nausea. Constant spitting. She drinks a quart in twenty-four hours. Pain in stomach; dizzy from anemia. For five days has retained only about a tablespoonful of malted milk. Has had rectal food—milk and beef tea, etc., also one or two eggs in normal salt solution with one-half teaspoonful of glucose.

Have given her a few tablets of the triple arsenates with nuclein (all I had), but has been on arsenic, strychnine, digitalin and other tonics. Her heart is very weak. Will thank you for any suggestions. I consider her in a very serious condition.

G. B., Indiana.

Indeed your wife's condition is serious, and we hesitate to recommend or even support any method of treatment without having further light. First, and foremost, it seems to us the stomach needs to be washed out with sodium bicarbonate solution; then a test meal must be given and withdrawn and examined. Here is a suggestion: give cactin, gr. 1-67, strychnine valerianate, gr. 1-67, with a swallow of hot water, or give a hypodermic of strychnine and digitalin if this is vomited and follow either, in fifteen minutes with: acetanilid, dr. 3; bismuth subnitrate, carbo. veg., sodii bicarb., aa dr. 2; magnesium carb., dr. 2; ol. menth. pip., gtt. 10. M. Rub the oil with the magnesia well, then add the other ingredients and mix thoroughly. Sig. A coffeespoonful every three hours, or before food. Or you may try bismuth and cerium oxalate with cocaine, one tablet hourly till the nausea ceases, then follow food with papayotin, gr. 1-2, with charcoal and soda. This, if combined with careful feeding (clam juice, barley water, egg-water, beef-juice, zwieback, etc.), may cause retention and assimilation of food. Then you will need to exhibit hydrastin, strychnine, and capsicum, nuclein, etc., with probably xanthoxylin, and juglandin—for their alterative and tonic action. Enemata, inunction and the most careful toilet of the mouth, etc., will all be called for, but first and foremost it is essential to *stop* the vomiting and gastric irritation and secure *some* nutrition. This looks like a case of neurasthenia gastrica, but there may be a neoplasm or gastritis. Can you not get a *good* "stomach man" from Indianapolis to make a careful examination of stomach, etc.? Ours are suggestions, merely, but we hope they may aid you; the acetanilid and bismuth has turned the tide in some serious cases and cure finally followed. One further suggestion: stop the use of arsenic in *any* form.— Ed.

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Query 5064. "Hodgkin's Disease." Please give diagnosis, prognosis and treatment for Hodgkin's disease.

E. S. J., Ohio.

Pseudoleukemia, pseudoleucocythemia, lymphatic anemia, is a peculiar disease characterized by pronounced hypertrophy of glandular tissue and marked anemia. The cause is not understood. There is supposed to be some pathological relationship between this disease and leukemia, the spleen being generally affected, though rarely to the extent that it is in the former disorder. It is probable that finally the splenic abnormality will be found to be the primal cause. The changes found in the adenoid tissues and lymphatics may be due to the action of a microorganism and Murray calls attention to the fact that cattle, dogs and other animals present the same symptoms. At the present time we can only offer theories.

The disease is progressive: one gland only may be affected for a long time or several in one locality, causing the appearance of a tumor which may reach a large size. The deeper glands may suffer early,

Leffmann says ageing whisky does not diminish the fusel oil in that popular liquid damnation and the oil does little harm. Now, Harry!

Gas generated in the vulva by a microbe, cured by tamponing with glycerinated gauze.—*J. A. M. A.*

causing various (pressure) symptoms. In fully two-thirds of the cases the liver and spleen are involved and the marrow in the long bones may be converted into lymphoid tissue. The white blood corpuscles are increased and the red decreased in number and crenated. Anemia increases as the glands become involved and varying symptoms present. Epistaxis is common and fever not at all rare. Paroxysms resembling attacks of ague sometimes are frequent and gastric disorders render life unbearable. The patient presents a pitiable picture as group after group of glands succumb, one disability after another occurring, until death finally closes the scene. In some cases the progress is comparatively slow, periods of quiescence intervening, but in the majority of cases the fatal termination comes speedily. Exhaustion usually causes death: peculiarly enough the glands have been observed to decrease in size considerably just prior to the end.

The prognosis is distinctly bad—if the disease has progressed to any extent and involved more than a few superficial glands—hopeless. Treatment is, unhappily, inefficacious. Early, where one or two glands alone are affected, extirpation may help. Here even the spleen must be normal, anemia not pronounced and fever absent. Operation also may be called for if an enlarged gland compresses an artery or the trachea, etc. Arsenic is alone to be depended upon; the triple arsenates with nuclein have, perhaps, given the best results. Lecithin is also to be tried. Iodine in some form is generally given; calx iodata is probably the best form. The phosphorus needed is present in nuclein. Fowler's solution has given results, but the arsenates are superior. Give large doses and push till slight evidences of toxic action are seen. The general health should be improved in every way; eliminate, give digestants (papayotin, pancreatin, etc.), order salt baths and keep patient in open air. Beef juice may be given every two hours. Ichthyol locally and internally has certainly been of service in early stages. Defibrinated ox-blood has been injected into the cleansed rectum with some effect. Sanguiferrin is better still. The writer would push berberine, cactin and juglandin with the arsenates, and give nuclein and lecithin steadily. A saturated solution of potass. iodide driven in by cataphoritic action, and ichthyol locally, are, perhaps, the best things we can do externally. Phytolaccin and anemonin have some effect upon the glandular tissues and should be tried. We trust that these few suggestions and somewhat incomplete description of the disease may help you.—Ed.

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Query 5065.—"Obesity." I find nothing in your literature explaining the method of treating obesity. Kindly mail me some sort of guide on this subject, for I have three persons to take the treatment if I can show them some evidence of probable good results.

A. M., Massachusetts.

Doctor, the alkaloidal treatment of obesity, like every other, must be modified by the physician according to the conditions present. The formula of the obesity tablet is plain, the uses of the drugs it contains well understood, and the general method of reduction plainly outlined in the pamphlet issued by us. It is a scientific treatment, not one of the advertised "a pound a day or money back" variety, and, as we have frequently pointed out, must not be looked upon in any sense as a specific, merely as a point of departure or foundation for treatment. Give one "obesity" tablet before meals for the first three days (or a week) and each morning before breakfast a teaspoonful

Radium tubes are apt to burst from internal pressure due to the disengagement of helium in gaseous form.

Zunker says the human organism requires artificial stimulation; which shows what Zunker tries to make himself believe.

of saline laxative, preferably in a glass of hot water, and the next week add one tablet after breakfast, the middle of the week add one after dinner. Begin the next week exhibiting one before *and* after meals three times a day. The next week add one at bed time. Continue this way, limiting diet, keeping the skin active and pores open with salt baths (two drams to the quart); morning and night, exercise, deep breathing, abdominal movements, i. e., stooping with the hands raised above the head until the finger-tips touch the floor, from side to side from the hips, turning the body as on a pivot from the hips, etc., and you will have a marked improvement in a month. In some few cases, Doctor, you will have to add the fresh juice of *Phytolacca decandra*. You can obtain a tablet containing two drops of the fresh juice expressed before the frost touches the berry. Add one to two tablets to each dose.—Ed.

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Query 5066.—"The Local Use of Nuclein and Aconitine." Is nuclein solution suitable for local use in the eye, and if so, in what strength would you recommend it? May it be combined in an ointment with caroid and oleate of mercury? Have you any knowledge of aconitine being used locally in the eye as an analgesic? If so, in what strength?

E. M. T., Wisconsin.

Nuclein solution can be used hypodermically, per os and in the eye, but we would hardly recommend its use in the latter organ. We cannot quite see wherein it would prove beneficial. However, there may be a new field open here and if you make any experiments we should be extremely obliged to you for a report of results. No, Doctor, do not combine nuclein with caroid, in fact, do not combine any preparation of this class with a digestant. Aconitine has rarely been used in the eye and we would strongly suggest the use of something less toxic. *Acoin* is perhaps what you are thinking of? Try the preparations of adrenalin chloride. Naturally the conditions present would indicate the exact remedy for the case. Were we in possession of some facts relative to clinical conditions we should suggest more definitely. Do not forget that scopolamine hydrobromide or hyoscine hydrobromide is used with excellent results in iritis. — Ed.

Query 5067.—"Menorrhagia In Hemophiliac Girl." What can I do with a young girl who is a hemophilic? She is fifteen years old, and menstruated for the first time last December, when she flowed very freely, the flow lasting about ten days. It left her very anemic and weak. She did not menstruate again until in March, when the hemorrhage was very severe, and lasted for more than two weeks and was nearly fatal. I used about everything I had at hand to check it, but nothing seemed to have any influence over it. I also tamponed and used ice bag over abdomen. She simply bled until she could bleed no more. She has had the history of bleeding since a child; bleeding at the nose for days, oozing of blood from gums, and the slightest injury was sure to leave a discoloration. She has not menstruated since March and I dread the time when it comes again. What can I do? Does tamponing do any good in these cases? What can you suggest to help out.

W. E. W., North Dakota.

You had better give this girl calcium lactophosphate in full doses. Hemophilia is a very difficult condition to treat. Do not tampon in a case of this kind but give gelatinous foods in the intermenstrual period. Alcohol, tea and coffee are to be forbidden and a vegetable diet, milk and lemonade desirable. Iron chloride is unquestionably of benefit in small doses and magnesium sulphate is invaluable. Here is our suggestion as regards the latter preparation:

Stadler says an intercurrent erysipelas cured a maid of pernicious anemia. Probably she got her bowels regulated.

Minervini says all angina pectoris patients bend backward and to the right as if trying to get away from the heart. Do they?

magnesium sulphate, sixteen ounces, hot water sixteen ounces, white sugar, sixteen ounces combine the three, stirring until a clear solution results, then boil for five minutes in a double boiler or porcelain-lined vessel. You can flavor this with a little tincture of cardamom or oil of cinnamon if you desire. Of this give one teaspoonful two or three times daily, following it with a little water. This is one of the most useful formulas known to the writer. Gelatin may be used in all possible forms and small doses of adrenalin chloride may be given. Helonin, viburnum and aletrin are all to be recommended here as uterine tonics and ergotin may be given with these in small doses. Of course, Doctor, if bleeding is severe at the menstrual period you will have to apply to the os a piece of iron alum the size of a hazelnut and give hydrastinine, one granule every fifteen or thirty minutes to effect. Keep the patient perfectly quiet and for several days prior to the flow push gelatinous foods heavily and give calcium chloride in medium doses *for the last three days only*. Let us suggest that you read Nothnagel on the "Hemorrhagic Diathesis" (Nothnagel's "Encyclopedia of Practical Medicine," price six dollars per volume). Each volume dealing with a separate subject, it is not necessary to buy the whole work. The eleventh volume deals with diseases of the kidneys, spleen and hemorrhagic diathesis.—Ed.

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Query 5068.—"The Old Question of Dosage." I have given eight to twelve of the anticonstipation granules and I get no results. Will you tell me why? If this is not enough would you advise twenty-four? I don't blame you people. I am old enough to know better than to allow such a condition to obtain, but "such is life."

P., Indiana.

The "anticonstipation" formula, Doctor, is not purgative, and after you give a certain quantity you defeat your own object, the atropine effect being too pronounced. When obstinate constipation exists, other measures must be taken to empty the bowel and induce peristalsis. The anticonstipation granule is intended to gradually restore and maintain normal intestinal activity. Use small doses of calomel or blue mass and soda, and podophyllin or the hepatic (eclectic) or any other of the more powerful laxative and hepatic formulas in "dose enough" to secure two or three dejections next day. Always follow with a morning saline draught and then commence to give the anticonstipation granules with a saline each morning—preferably in *hot* water. At the same time attend to diet and insist upon stool being made at a regular hour; if necessary to dilate the sphincter ani (and it often is!), dilate; if there is weakness and dilation of the rectal ampulla use a gluten or glycerin suppository daily for a few days. Once habit has been overcome, two to four of the anticonstipation after meals will keep up intestinal activity. Gradually reduce until the smallest possible quantity is being taken to secure one full daily stool. If we knew something more definite about the case we might be able to help you further.—Ed.

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Query 5069.—"Scars on Face and Angleworm Oil": "Ice-pack for Cancer!" I have some scars on face, back of hands, etc., to remove without denuding. Can I use croton oil or fly-blister, or angleworm oil to loosen and raise the depression? The scars on the hands are from a burn; on the face, a denuded bruise which healed too quickly and before using antiseptics suppurated and became an indolent ulcer. Silver nitrate was used to induce healing.

How about removing "wine-marks" on the face the size of a half dollar?

How is an ice-pack for cancer of lower lip? The case is in a male, an old soldier aged

A weak, undersized, undermuscled heart is one of the most constant and significant conditions in consumption.—Hutchinson, *Med. Record.*

Weak, rapid pulse and defective first heart sound precedes consumption, the earlier the more ominous. Woods Hutchinson, *Med. Record.*

66 years. He had scurvy and chronic diarrhea, but this has been checked for two months. His general health is good. He stirs about the house and takes walks, is a good eater of plain, fluid diet, such as chipped beef, rice, light bread, buttermilk and water—and water only, no intoxicants. His lower lip is eaten away. I have been treating him for about five months. His kidneys and bladder are in fair condition, sp. gr. of urine 1020, reaction acid (slight), with some traces of albumin. That is as far as I have gone. He is free from pain except in the corners of his lips. I have been using "radiol" until lately, also zinc sulphocarbolate and ice to his lip. The cancer is not killed. What further can I do?

W. J. L., Kansas.

"Fishworm oil" is something absolutely beyond our ken—a curiosity, read about as part of the errors of the past and then forgotten. "Fish oil," "earth-nut" oil and even more peculiar oils are listed, but even our oldest and most empirical books fail to mention "earth-worm" oil, though, as already said, we *have* an old book in which a fearful concoction of worms stewed in oil is mentioned as being used to cure the "white swelling." In modern medicine thiosinamin alone is used to dissolve scar tissue and it isn't *always* satisfactory. Moreover, it is most efficacious, injected—and it hurts a good deal. Slow results may be obtained from thiosinamin given per os in some cases. We would very strongly advise that these scars be left alone or mild solutions of thiosinamin used tentatively. Cancer of lip (if *cancer*) requires prompt excision or removal by arsenic paste, subsequent poulticing and grafts under "applied-blood" treatment. Echinacea and thuja locally and internally have healed some suspicious "sores." An "ice pack" would lessen vitality and cause prompt necrosis of part. Doctor, either excise all affected tissue or apply at once Marsden's paste (arsenous acid, one part, pulv. acaciae, two parts; mix well with water to make a thin paste). Apply as thick as a dime, cover and leave for twenty-four hours. Pain is severe. Poultice till slough separates, then cleanse well and graft particles of skin over surface; dress with iodoform gauze and bovinine, taking great pains to maintain asepsis. Internally nuclein, the arsenates, echinacea and condurangin. Nourish well and keep up elimination.—Ed.

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Query 5070.—"One Man's Food." I read this foot note in the March issue of the Journal: "Linossier says fresh eggs are poisonous to some persons. Know any cases? Probably when taken in eggnogs." I had heard of such things but had never seen a case until this spring, when I observed two cases the same week. The engineer of the building in which I office and one of the leading grocers of this place are both men of about 38 years. They cannot eat eggs in *any* form, coffee which has been settled with an egg having the same effect. In both cases all the symptoms of the most acute, violent gastroenteritis develop. It is impossible to deceive them about the presence of an egg, as they have demonstrated to their sorrow many times. One of the gentlemen tells me his cousin is troubled the same way. In both cases the history is from earliest infancy. I have also seen one case of acquired idiosyncrasy caused by an exclusive egg and milk diet during illness. Is this sort of thing common?

H. M. H., Idaho.

Every article of food used by man has been the subject of an idiosyncrasy. Flour (wheat flour) has produced spasm in one individual whenever ingested. Even the smell of white flour would cause sneezing, headache and intense pruritus for forty-eight hours afterwards. In that remarkable book "Curiosities and Anomalies of Medicine" you will find some very interesting matter upon this subject and some cases of "poisoning" from eating fresh eggs are quoted.—Ed.

In tuberculosis, pneumonia and typhoid, the chief strain falls upon the heart and death is mostly due to toxic heart failure.—Hutchinson, *Med. Rec.*

The quotations from Vaughan and Cobb are taken from the Teachers' Sanitary Bulletin of Michigan, Vol. 8, No. 11.

QUERY 5071.—"Drugs Facilitating Parturition." Is there any drug you know of that will have any influence, given two or three months before the expected time of confinement, that will help to produce an easy labor?

G. A. B., Nebraska.

As to the production of "easy labor" we have time and time again advanced the argument that few women need suffer as they do if castor oil is used daily for the last month—in *small* doses at night. Aletrin and viburnin (one granule each) may well be given three times daily for the last two months and one to two teaspoonfuls of ol. ricini exhibited with warm milk at night. We have delivered women who had "difficult labors" under this treatment in less than an hour (one "delivered herself" in the toilet) and have yet to experience a failure where there was no deformity of the birth canal. Warm sponge baths to perineum and after-parts are useful and massage of perineum with olive oil is beneficial also during the last month. However, the main thing is castor oil—with aletrin and viburnin. Caulophyllin in hot water (two granules every fifteen minutes) if rigid os is present.—ED.

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QUERY 5072.—"Sciatica." How would you treat a severe case of sciatica in an old man of good family history—never affected this way before. He has enlargement of the prostate and has been compelled to use the catheter for the past nine months. He has to use morphia for the pain, sometimes taking as much as 3-8 grain before relief. Isn't there something that can be used in place of it other than codeine?

W. G. H., Iowa.

In a case such as you describe here, the chances for satisfactory results are poor. In the first place, the pain may not be really sciatica but due entirely to prostatic or bladder irritation. The necessity for prostatic medication is evident and the bladder should be irrigated with antinosin, ichthyol or creolin solutions. Formin compound given every four hours with barley water, adding gr. 1 of arbutin, will be of benefit by keeping the urine normal and you may well add macrotin, two granules, and bryonin, one, for the pain. Hyoscyamine will perhaps give you as good results as opiates and a suppository containing atropine will be of real service. You may add papayotin or papain and hamamelin to relieve congestion. Have you tried the psychophore—hot water return coil? This is a good appliance. Guaiacol, plain or with lanolin, is often of great benefit; rub in thoroughly over nerve and notch. Ethyl chloride spray also gives relief and often wards off an attack. The French use betul-ol and ung't anesthetique (Bengué) with success; both these preparations are on the market and have been used by the writer with satisfaction. Of course oil of wintergreen is the essential ingredient; menthol can be added. Dry and moist heat promptly relieve often, and hot compresses wrung out of a solution of epsom salt (one ounce to the pint) are to be depended upon.—ED.

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QUERY 5073.—"Rheumatic Iritis." I have a case of rheumatic iritis of ten years' standing, following an attack of typhoid, that I would like to have you give complete treatment for, as the patient has had the adhesions removed twice by operation and does not want to undergo any more operations. Man of sixty, robust, of good general health except for slight rheumatic attacks. No syphilis. I see by the "Digest" you advise mercurials. In what form? Would electricity in any form be beneficial in the case?

H. H. K., Colorado.

Rheumatic iritis calls for strong antiuricacid treatment. Elimination with calomel or blue mass—gr. 1-6 and 1 respectively—and podophyllin, gr. 1-6, hourly for six

Plague is spread commonly by means of body parasites but many cases originate from intestinal infection through food.—Cobb.

Leprosy is caused by eating infected food, the contagion most likely planted upon the food by flies.—Cobb.

doses with salines the next morning on awakening, will be the first step. Repeat every third night; the saline every morning. After each meal five to ten grains of the triple sulphocarbolates *well diluted* with water. Colchicine in small doses every four hours is often beneficial. Sodium salicylate unquestionably gives good results; the mercurials (mentioned in "Digest") should be employed in iritis of specific origin. Early, in primary rheumatic iritis, atropine is essential and bryonin may well be exhibited also. The skin should be kept thoroughly active and the urine examined every third day, especial attention being paid to urea and uric acid. Locally, apply hot antiseptic compresses—cold is only called for in traumatic cases. Rest and darkness are desirable. Of course, each case must have treatment modified to suit conditions. We personally have had no experience with electro-therapeutic measures in iritis, but believe that much is claimed for them. Nieswanger's work will give you the latest treatment of this character.– Ed.

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Query 5074.—"Convulsions of Probable Gastric Origin." I have a case that has taxed my every resource and I cannot find any relief, so am going to ask for help: A boy, four years and six months of age, has convulsions. He has had them for fifteen months, generally in the early morning or at meal time. His eyes roll up in his head, muscles are rigid, he froths at the mouth and screams very loud before seizure. The attack lasts a minute or two; he urinates during the convulsion, his eyes are red and congested preceding the attacks for a day or two. He will have a severe convulsion in bed or shortly after rising in the morning, and a light one at the table. Then he eats very fast and an immense quantity if allowed to do so. He has a most ravenous appetite, is active most of the time, mentally bright and, except for the convulsions, is in good health. He had a constricted and adherent prepuce. I first circumcised him, but got no relief, then dieted him carefully, or supposed we did; gave him calomel and santonin, followed by oil from a laxative to a free purgative. There seemed to be a slight improvement, for the attacks were not so frequent. I gave him bromide of potassium and chloral for nervousness and thought perhaps I had prevented the attack, but he will have one occasionally any way. He will complain of being tired and sluggish preceding the attacks, and complains of pain in the stomach a great deal. He has at times attacks of choking when the convulsions appear, be they ever so slight. His appetite increases and gets ravenous before these attacks, then his appetite will become normal and he will be apparently well again.

He had mumps just prior to the beginning of the attacks and was poorly for three months.

R. W. H., Wyoming.

We fear this is epilepsy, Doctor. What is the family history? Is there any luetic taint or tubercular tendency? Is pupillary reflex normal? How about the sphincter ani, is it constricted? Have you made a chemical examination of the urine? If not, send four ounces from the entire amount passed in twenty-four hours, stating amount passed. We are inclined to look upon these convulsions as of gastric origin, but it may still be epilepsy. Read the article on epilepsy in February Journal carefully, then make a full examination, noting pulse rate, heart sounds, reaction of pupil, reflexes deep and superficial, etc., going carefully over the spine and percussing for tender areas, and then write us again. In the meantime, Doctor, place him upon a limited diet of easily digested or, better still, predigested foods, fruit, meat juice, etc. Give him an enema daily of normal salt solution and one hour before retiring give scutellarin, three granules, verbenin, two, following with, just before he sleeps, one

It is the food that has been cooked and upon which the fly afterward alights that is the real danger, where bacteria multiply.—Cobb.

In the Philippines it was hard to check cholera because the flies contaminated the food and sweets sold by venders.—Cobb.

calmative for children (Candler). If it is possible to do so, give the latter tablet early in the morning and solanine two to three granules three times daily; also, papayotin, two granules after each meal. If this does not control the disease put him upon the full epilepsy treatment described in article mentioned.—Ed.

Query 5075.—"Membranous Dysmenorrhea." I would like your opinion regarding the treatment of a case of membranous dysmenorrhea and the prospect of the patient's ever becoming pregnant.

Patient, age about 25, married five years, never pregnant. Menstruation occurs every six weeks, and rather profusely. During the first few hours cramps are severe. Then a membrane forming a perfect cast of the endometrium is expelled, followed by relief from the cramps. The uterus is retroflexed, hard, and can be moved but slightly from its position in the hollow of the sacrum. There is no discharge except a clear mucus from the cervical glands. There is no tenderness except slight pain on pressure over the fundus posteriorly. I brought on a flow by internal applications at one time, which made the next period come in four weeks. This period was marked by the absence of the usual pains and membrane. This condition of membranous dysmenorrhea developed after marriage, although there is a history of less severe pain preceding that time.

K. K. H., Ohio.

We fear that nothing less than curettage or cauterization of the uterine cavity with pure ac. carbolic will avail. Interstitial or glandular hypertrophy may be present, while in some cases there is round cell infiltration or a true fibrinous exudate. You will readily see that medicinal treatment is apt to prove useless. Electric cauterization has given good results, but a thorough curettage is perhaps best, the uterus being dressed with either a europhen - aristol - petrolatum gauze or iodoform pencils applied. The writer applied intrauterine dressings of eucalyptolized gauze, packed in through a "gauze-packer," immediately after exfoliation in one case and a cure resulted. The solution was: sweet almond oil (boiled and cooled), two ounces; eucalyptol, twenty minims; ten minims more being added to next dressing and ten more to third and subsequent packings. The solution should be made fresh each time and packing done every twenty-four hours for six days. The cervix finally was painted with tr. iodine (carbolized). This case had resisted other measures. This might be tried here. Give cupurpurin, hydrastin and viburnin every four hours; two triple arsenates with nuclein after meals, and keep up free elimination. Watch the urine, Doctor, and correct any departure from the normal. Light curettage followed by iodoform gauze soaked with bovinine has also given results in non-hypertrophic varieties. Hot douches (using retention irrigator) are useful.—Ed.

Query 5076. "Aloin and Hemorrhoids." I am using a pill (proprietary) for hemorrhoids which contains aloin, ext. belladonna, ext. hyoscyamus, etc. Is it all right?

G. S. Y., Ohio.

Pil. hemorrhoidica containing aloin, extract of belladonna and hyoscyamus is a peculiar formula. Aloin, as you are surely aware, is in most cases absolutely contraindicated where hemorrhoids are present, and why extract of belladonna and hyoscyamus should be given together is entirely beyond our comprehension. We do not think that we should care to use this formula but if you *want* to use such a compound, Doctor, give aloin one to two granules, atropine one or two.—Ed.

Query 5077.—"Convulsion and Prolonged Stupor in Infant." I have a puzzling case on hand: An infant, now a week old,

Urge on all the screening of houses and especially of food, and patronize those stores that try to be clean. Cobb.

If you are looking for trouble try to compel sellers of candy, fruit, bread and pastry to protect their goods from flies.—Cobb.

had a convulsion a few days ago, and since that time it is lying in the bed without awaking to nurse except once in a while. Before the convulsion it nursed all right. I gave a good cleaning out and no more convulsions appeared. Otherwise the child seems to be healthy. It is fed on cow's milk and Eskay's food, but it only eats now one teaspoonful altogether during the day. This trouble seems to be in the family, as the children mostly die of convulsions or fade away from marasmus. Is there anything to arouse the child; it can bear no opiates whatever. The convulsion was due, I think, to overfeeding.

T. B., Texas.

The case you describe is one of great interest, but, as you can readily understand, it is absolutely impossible for us at a distance to form an intelligent conception of the conditions which exist here and cause the stupor. Is there any syphilitic taint? You might place this child in hot mustard water; apply a mild faradic current to spine and give camphor hypodermically or per rectum. It is possible for a child to have one or more convulsions and then pass into a stupor or sopor which may last hours, days, or even weeks; it is possible for sensation even to be abolished and even in these cases a fatal ending may not ensue. Repeated convulsions are the most dangerous. Of course respiration may cease through paralysis of respiratory center long after the last convulsion and death may come unexpectedly from arrest of cardiac action. Rachitic children are prone to such attacks as this. If you can do so, Doctor, find the cause; if found and treated properly the convulsions will, of course, cease. Dilate the sphincter ani; give a high hot saline enema, and if there is congestion of brain apply heat to extremities. If anemia, give cactin and digitalin with brucine. It is possible that you have meningitis, if so, blister at base of brain and rub in iodoform emulsion over scalp—and do it *well!* Nourish with beef juice, trophonone, sanguiferrin, enemata of somatose, etc. If we had even a faint conception of physical conditions and symptoms—nature of spasm, pulse, heart action, respiration, reflexes, etc., we might help you; as it is, we can only suggest that you look for irritative foci, correct any abnormalities you can discover and, while nourishing the child, medicate to overcome pathological conditions existant. Tubercle may cause such a stupor; unilateral convulsions mean brain lesion usually; bilateral autotoxemia or reflex irritation. Let us hear from you further.—Ed.

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Query 5078.—"Ellingwood's Therapeutics." I note the advertisement of "Ellingwood's Therapeutics" in May Clinical Medicine and would like to ask you if this is a desirable and reliable work for one who is getting the "alkaloidal fever."

M. B., Idaho.

We would most earnestly answer "yes!" Ellingwood's Therapeutics is one of the most practical, reliable and altogether delightful works of its kind extant, and the new work by Dr. Ellingwood upon "Practice" is equally worthy of praise. No matter what the school, what line of practice the physician follows, Ellingwood's Materia Medica and Therapeutics and Ellingwood's Practice are practically essential. We could not say any more if we were to use up a column in panegyrics. Simply take our advice and get Ellingwood's works. You will, perhaps, turn to them more often than any other works in your library.—Ed.

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Query 5079.—"Chorea?" I have a case of chorea of peculiar form to me at least. The patient, male, aged eleven years, began to manifest a peculiar twitching of vocal bands, making a sound very much like grasping anyone by the throat and shutting wind off. If the boy was excited or angry

When the physician speaks the world listens. He occupies in modern society a position of unique influence and importance.—Felix Adler.

Osler advises foreign travel, friction with othe minds, and a quinquennial dusting of the brain by post graduate work.

it was much worse. Trouble began last September. The father began treatment in November. Boy was brought to me in the latter part of February. I gave arsenic in increasing doses until effect. This trouble seemed to get better in the throat until about three weeks ago, but now that is returning and arms twitch, also the head. Now, what is the best treatment. Boy is in good health otherwise, eats and sleeps well. What is prognosis?

L. M. B., Pennsylvania.

Before we can suggest any definite treatment we would require a much more distinct description of conditions present. It *looks* like chorea. Take this boy, Doctor, and examine nose, throat, reflexes, prepuce, rectum, etc., and see what abnormalities you can detect. Percuss the spine for tender areas, note pulse rate, heart sounds, chest expansion, note quality and quantity of food eaten, then character of stool. Collect the urine for twenty-four hours and send four ounces, stating amount passed. You may have autointoxication and you may have an irritative focus (adenoids, worms, constricted sphincter ani, tension upon frenum, etc.), which causes the choreal condition. Full doses of passiflora incarnata with zinc phosphide and lecithin, alternating the zinc phosphide with the triple arsenates with nuclein, week and week about, usually proves efficacious, provided the bowel is kept clean and clear and physical abnormalities corrected. In some cases, however, verbenin and scutellarin must be pushed.—Ed.

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Query 5080.—"Senile Tremor." Female, aged 72, widow, well preserved, appetite and digestion normal. Circulation normal, bowels regular, urine specific gravity 1018, no albumin, no sugar, no excess of uric acid. No indican; amount passed, three pints. She sleeps well. The one, and only symptom she complains of is "nervousness." When she sits and reads or sews she is all right, but the instant she gets up she has a tremor of limbs coming over her. When she walks this disappears. For instance, she states that if she walks to a street car she is all right until she reaches the stopping place. Then she must walk to and fro until the car comes, to keep off the attack. I have given her hyoscyamine, gr. 1-250, four or five times daily, also syr. hypophos. comp., and now have her on bromides, and yet she is no better. Please suggest something.

T. H. W., Pennsylvania.

We note with satisfaction that the suggestions we made in another case turned out satisfactorily. We hope that we may be as useful in this case. In this case you have senile tremor, we fear—not yet well established but coming on. At once place this lady on zinc phosphide (gr. 3-67) after each meal for one week, then skip a week, giving in place thereof Waugh's nervine, one granule. Repeat the zinc phosphide in ten days. Sanguinarine, one granule, strychnine valerianate, one, scutellarin, one to three granules midway between meals, and before food quassin, two. Keep the bowels and kidneys acting freely with saline, and I suggest that she take a salt rub-down with cool saline solution and a rough towel every morning. Diet carefully and have the eyes carefully fitted with glasses.—Ed.

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Query 5081.—"A Puzzling Case; Is It Hysteria?" Mrs. M., age 39. Mother of two children, youngest nine years. One miscarriage. Father an epileptic, died at 68 as a result of an accident. Mother living, 76 years old, good health. Mother's father and one brother died of consumption. Fourteen children in Mrs. M.'s family. One brother living, age 34, good health, very nervous. One sister living, age 29, poor health. Do not know her trouble as she does not live here. Eleven dead. Four died of consumption after reaching adult life (none reached 35). The others died in infancy. Mrs. M. was nearly 19 when

Osler classifies cases as clear, doubtful and mistakes; and recommends a private notebook to record the mistakes.

Physicism assumes that when a man is physically at the top of his bent he is so mentally as well.—Felix Adler.

she began to menstruate. Says she never was very well, always having a great deal of backache. Two years ago she began to have "spells" beginning with hiccough and continuing until she would vomit—at first slime and then blood. These spells came on at first about one week apart, but gradually got closer together until they were continuous when out from the influence of some remedy. Bromides had no effect, cicutine gave good results a short time. Finally had to use morphine and atropine hypodermically, gradually increased until nearly one grain was used.

In June, 1904, she was taken to a hospital in Sioux City, where she was curetted and some hemorrhoidal tumors removed, and came home after several weeks much improved, and so remained until February, 1905, when she was taken the same as before. She was taken back to the hospital in March, where she remained a short time and came home a very little better and so remained for about three weeks. Then she was taken to the hospital at Rochester, Minn. They told her there nothing was the matter with her and she came home. She has remained about the same until lately, when her attacks have been coming on more frequently, every time she menstruates and sometimes between times. Her menstruation comes on every two and three weeks and lasts one week. Does not hiccough now, but vomits slime and blood until she has a hypodermic. Has headache most of the time and a constant pain in the back in sacral region. In fact, there is pain upon pressure nearly the whole course of the spine. She has been advised to have hysterectomy performed. Would like to have your opinion, Doctor, if you can get enough from this write-up upon which to base an opinion.

L. W. C., Dakota.

You do not tell us what the patient looks like; whether she has lost weight; what her appetite is like or her *disposition?* Is blood red, black, or "coffee ground" in appearance; how much vomitus; how often does she vomit? At what time, and does food return? Is there hyperacidity or is vomited matter alkaline? Is she thirsty always? Sleep troubled? Pain in epigastrium and under shoulderblade? How about the urine—and what are stools like; how many per diem? Any leucorrhea? Examine pelvic contents carefully and abdominal. Test reflexes. Have you washed out the stomach and then tried *suggestion?* This *may* be a clear case of hysteria; slime is often present in the stomach and blood can be added by "sucking the teeth." Give us information on these points and stop opiates, substituting hydrastin and brucine with juglandin. Mustard leaf over the stomach area and a snug flannel band, after a copious enema of hot salt water and lavage of stomach with boric-acid solution. If *no* discoverable lesion anywhere, tell her positively that these measures will cure her—and they probably will. If there is a good cause for symptoms described it must be found and remedied.—Ed.

Query 5082.—"Prenatal Influence; Intrauterine Amputation." I have a case on which I wish some opinions: A baby, male, well developed, born about two or three weeks ago, right arm off about elbow, left a little longer and gradually tapers down to the size and shape of index finger with well developed nails on finger. Mother claims to have been frightened by one of her relatives showing her his leg, which he had amputated above knee. Baby perfectly healthy. What was the cause of the arrest of development of arms and peculiar shape of arm and finger? Will impression made on optic nerve have any influence on child in utero? Any explanation will be gladly received.

J. O. McQ., West Virginia.

Were we to enter into a discussion of the subject of prenatal influences and intrauterine amputations and monstrosities, we should have to devote the next few days to the subject. This question has received minute attention and you will find matter

We have the mental power to defy untoward physical condition as we have to control not indeed all but some diseases.—Adler.

A pure, profound love for Vittoria Colonna unsealed new possibilities in Michael Angelo's nature; hence his sonnets.—Adler.

well worth reading in Edgar's Obstetrics; the American Text Book also gives some interesting chapters upon the same subject. After all, we must be content with theory. We do know that women give birth to children curiously deformed or marked after having been subjected to shock or the sight of some object similar to the deformity present in the child. For instance, the woman (quoted in all authorities) who gave birth to a child with the lungs, heart, and portions of the other viscera extruding from the thoracic walls, had seen a pig killed and the "pluck" removed. Now, the opponents of prenatal influence will say that it is "a coincidence;" that other women have seen pigs killed and have not given birth to children whose vital organs were outside the chest walls. True, but in these cases the impression was not sufficiently strong and the proper formation period probably past.

If we are going to deny prenatal influence entirely how are we going to account for the resemblance of a child to its father, or, still more remarkable, to some picture or person upon which the mother has concentrated her attention and thoughts during pregnancy. We know, personally, a woman who is extremely dark and whose husband is even darker. This woman desired particularly to possess a fair-haired, blue-eyed girl baby, and during pregnancy she fastened her eyes upon retiring at night and the first thing upon awakening in the morning upon a remarkably well-colored picture representing a fair-haired, blue-eyed baby girl playing with a ball. At two years old the child she bore was an exact facsimile of the child in the picture. Certainly prenatal influence had something to do with this.

We are invariably telling women to be careful not to receive shocks, to be happy and bright and all that sort of thing during pregnancy, and yet we turn around and say there is no such thing as prenatal influence. This subject is one that requires careful thought and infinite study and at the end of it all we shall never be able to decide positively just why a woman should bear a child minus an arm or minus its legs because in the earlier months she witnessed a man whose arm had been amputated or his legs were missing, but that such is the case is undoubted. A book has been written by a French author dealing with monstrosities and abnormalities of the fetus. If we are not mistaken, Edgar quotes this work in his very satisfactory chapters upon the same subject. You will also find in Edgar's Obstetrics several very interesting plates representing abnormal and "mutilated" infants. In fact, we believe there is an illustration of a case exactly similar to the one you describe. The intimate relationship between the centers governing the generative organs and those controlling sight, smell and taste will undoubtedly in the end account for most of these phenomena.—Ed

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Query 5083.—"Was it the Result of Otitis Media?" On December 27, I was called to see Mrs. G. B., age 36, mother of three children. I found she had fever; temperature 101° F.; pulse, 80. Tongue badly coated, thick yellowish color. She gave a history of earache and suppuration which had occurred a week previous. There was still some slight discharge from the right ear. I prescribed calomel, to be followed by saline, also aconitine, digitalin and veratrine, as she was a full blooded brunette with strong, full pulse. I called every day for twelve days, the temperature varying during this time from 100° to 102° F., at the end of which period pulse and temperature was normal and tongue clean. She was up and dressed and expressed herself as feeling all right.

During the above period another physician saw the case with me and thought perhaps the fever was the result of the ear, as the discharge had ceased after the applica-

That kind of mental excellence which depends upon judgment is not likely to be attained early in life.—Felix Adler.

From age to age, ascent to ascent, power to power, glory to glory, at last we pass as it were into the open heaven.—Adler.

tion of small blisters around the ear and a mild application of boric acid. During the treatment she had taken about twelve grains of quinine per diem, and as she complained of pain in the supraorbital nerve, potassium bromide, gr. 5, and the consulting physician had suggested an antiseptic tablet of an alkaline character to be used with warm water to syringe the ear, also gr. 1-8 of morphine sulphate for pain and to secure rest at night. By January 16, 1906, as there was no pain or tenderness about the ear, and freedom from fever, and she was about the house, the case was discharged as convalescent. Whether as the result of overexertion or fresh cold, she was taken down again four or five days after with pain in the head, with coated tongue, but no rise of temperature. Another physician was called in, of some surgical ability, who pronounced the case of a serious character and thought an operation advisable, but for some reason delayed for a few days hoping she would improve under treatment when he would operate. But the case gradually grew worse, until marked meningitis was developed which gradually merged into active delirium and terminated in coma on February 26, 1906.

A specialist was also called who applied a portable x-ray and pronounced it mastoid disease. Query: (1) Is there any portable x-ray capable of showing through? (2) Do you think an operation should have been performed early in an apparently mild case like this, or should it have been performed when the relapse occurred? Do you think it would have made any difference in the result? This was a very prominent case, much canvassed, and the husband feels sore because we did not advise operation at the first consultation.

W. C. G., New York.

The slight constitutional symptoms unfortunately led you into temporizing measures. Wherever there is any suspicion of pus about the head the physician should never hesitate about getting after it. In this case the blood count would have shown leucocytosis. Although you do not describe any local conditions we imagine from your description that there was evidence enough to at least arouse your suspicions. These cases are always dangerous, no matter how mild they may seem to be; and the physician should consider it an axiom that mastoid infection calls for drainage, as you know it is only a thin membrane which separates the mastoid cells from the cerebral meninges, and the blood supply is very intimate. The time to operate in such cases is just as soon as you can demonstrate the presence of pus. Certainly after the relapse there should have been no further delay, and in our opinion the operation should have been done, by preference, much earlier.

Of course you understand, Doctor, we can only express an opinion from the scanty knowledge with which you have furnished us. But, hereafter we would suggest that in any case of this kind where a question arises as to the correctness or incorrectness of your diagnosis that a specialist should be called in. That will at least relieve you of responsibility in case the end should be as unfortunate as it was with your patient.

Regarding the value of x-ray examination in a case of this kind we hesitate to express an opinion. Of course if there was extensive abscess development or destruction of bone, it is possible that it may be detected with the Roentgen ray, but as a rule examination of the contents of the skull in this manner is unsatisfactory. We shall be glad to submit this question to those of our brethren who specialize in the electro-therapeutic field.

One remedial measure that should have been employed in this case was the use of calcium sulphide—the internal remedy of most value in all pus infections. For an alterative action you will find calx iodata much superior to the iodides.—Ed.

Old age is my friend in that it has liberated me from a vicious and savage master who has disturbed my peace.—Sophocles.

Persistently rapid pulse without apparent reason should arouse the suspicion of incipient tuberculosis. —Hutchinson, *Med. Record.*

The Doctor's Wife

FROM THE WIFE OF A VETERINARY SURGEON.

FOLLOWING out the very felicitous thought of the editors of CLINICAL MEDICINE—as embodied in their newest department, The Doctor's Wife, this letter comes from the broader field of comparative medicine; the scribe being other half to a veterinary surgeon.

People for the most part are prone to think slightingly of the intellectual faculties of our dumb friends; but all my observations incline me to the opinion that they are keen judges of character and form friendships to which they adhere with a fidelity man might well copy, but often does not. Many are singularly tenacious of ideas and follow out regularly a course of action suggested by appearance of an object. For instance: Freddy is a "black-and-tan" who belongs to an elderly couple—being to them as an only child. Freddy has an independent disposition and goes out on the boat if he likes; so one day when he is nosing round on the deck he fixed a fishhook firmly in his inquisitive black nose. His friends bring him to the veterinary hospital in hot haste and the doctor as quickly and painlessly as possible, extracts the hook; yet ever after the sight of the doctor, from some curious association of ideas, makes him angry; and whenever he sees his carriage going by Freddy chases it with short, choppy barks of extreme disapproval.

As I write memory brings up a panorama of creatures I have known—each with a personality and character entirely distinct from his fellow, full of interest and well worth study. I recall horses that were at heart very timid, yet carrying a high head and restless foot, making a "bluff," as do other creatures—not dumb—of being a very bad, bold citizen; becoming meek and lamblike when he learns that you have fathomed his little deceit; that you are master of affairs, that he must have whatever you think is indicated—bolus, drench powder, lotion or bandage. All this being accomplished, mind you, without recourse to one bit of harshness, abruptness or unkindness. The next time he sees you his program is altered and it is a very docile equine you encounter and by some indefinable process you have gained his confidence and he trusts you.

The greatest hero I ever saw was Jack, a foxterrier belonging to a soldier at one of the forts scattered along the coast of Maine. Jack had a compound radio-ulnar fracture. His poor little foot hung limp and helpless, causing, doubtless, the very acme of suffering; yet with a fortitude I have never seen equalled, he lay on the operating table, without a movement or a groan, and had that limb set. His soft, earnest eyes looked at the doctor with an entireness of understanding that gave little expression to the hurt he must have felt; and he never whimpered while the frayed ends of osseous tissue were placed in juxtaposition and splints with plaster paris bandages were adjusted. Tacitly he said, "I know you are doing this to help me." Surely the possession of intellect could not be denied this creature who bore pain so nobly, apparently seeing repair in the future. I wonder how many doctors ever set broken limbs for men or women, boys or girls, without demonstrations of

more or less disquietude. Brave little Jack! I honor you for the nobility of your character.

I think we may plume ourselves when we are given the friendship and love of these creatures. It is worth while to have the affection of a dog since some of our greatest writers have not hesitated to give high place to them. The little Giant of Missouri did not deem it beneath his senatorial dignity to extol in words that are become classic, the friendship of a dog. Most of us know how the little boy in the "Gates Ajar" felt when he asked his mother in a very passion of grief and tears, "Oh Mamma, Mamma, don't little, nice, clean, white guinea pigs ever go to heaven?"

But this department is—The Doctor's Wife. Well, this doctor's wife has strayed from the subject we may discuss by kind permission of the editors; but I have given you some glimpses of the days of a doctor's wife. I strongly wish to see this again and hope to miss the wastebasket. I want to say that the alkaloids are used and appreciated in this hospital—being finely adapted to small creatures; and most things from aconitines to zinc sulphocarbolates are on our shelves and in daily use. O. G. L.

——, Maine.

—: o: —

The wives of the "vets" are just as cordially welcome to this department as the wives of those who practise on "humans." Our great Healing Art is big enough for everything that breathes and we have a peculiar respect for those who minister to the suffering of such fine four-legged friends as this "wife" has just described.—Ed.

KIND WORDS PAY.

I want to thank you for the Doctor's Wife,—to thank you for your thoughtfulness of the "toilers" helpmeet and to express to you what this, her department, will mean to my many sisters that sorority you have spoken of throughout the land.

The "toiler" perhaps has neither the easiest nor the lowest of lives and we fully appreciate our mission; to help him over the rough places, to share his burden, to comfort when things go wrong, and to lift him up when he is downcast.

Does not much depend upon the attitude the wife assumes? The gentleness and courtesy that characterized the courtship should not be forgotten after marriage. Kind words always pay, while it is seldom that anger is not regretted. The following little poem, entitled "Our Own" exemplifies this:

"If I had known in the morning
How wearily all the day
The words unkind would trouble my mind
I spoke when you went away;
I had been more careful, darling,
Nor given you needless pain;
But we vex our own with look and tone
We may never take back again.
For though in the quiet evening
You may give me the kiss of peace,
Yet it might be that never for me
The pain of the heart would cease.
How many go forth in the morning
That never come home at night!
And hearts have broken for harsh words spoken
That sorrow can ne'er set right."

This to me seems particularly applicable to the Doctor's wife. I shall look forward with keen pleasure to the "Sisters' Department" each month, and also, I am sure, will all who become acquainted with it.

Although I am far from a man hater, yet I am glad we are to have a cozy little corner all by ourselves where naught but our own sex is to be in evidence, except on state occasions. J. W. F.

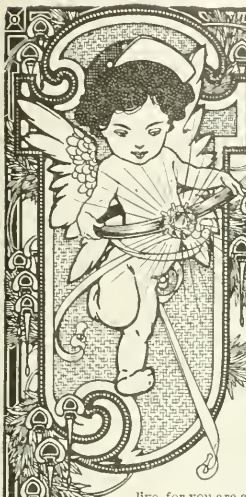
New York, N. Y.

—: o: —

Welcome to the corner—and may your visits be often.—Ed.

Dear Stephens: How do you possibly manage to operate with tools made of iron ore? The whole is greater than a part, always?

Dear Stephens: When you pull up a plant to give as a dose, do you shake the dirt off the roots before administering.



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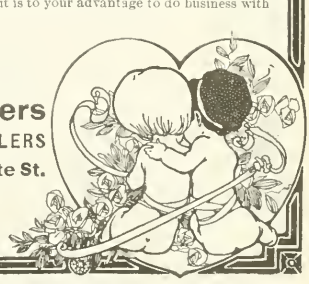

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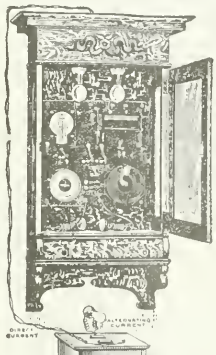

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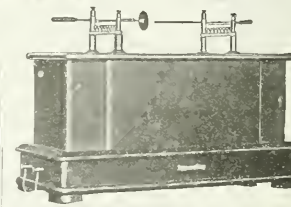

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The substitutor: Ananias was an angel compared to him. The first stole money and then lied about it. Penalty—Death. The substitutor steals your patient's money, his chance of life and your reputation as well. Penalty—Increased bank account.

While waiting in a physician's office an inquisitive man observed a nicely polished, pointed piece of ivory lying on the doctor's desk and proceeded to pick his teeth with it. The ivory happened to be charged with vaccine virus. The vaccination took effect.

A TESTIMONIAL.

He had pneumonia, Bright's disease,
Delirium tremens, gastric wheeze,
An addled brain, a coated tongue,
A housemaid's knee, a smoker's lung,
Elephantiasis, cancer, gout,
And many other things, no doubt,
Until a phamphlet once he read,
"Hope in the Future! Light Ahead!!
Waters of Life astound—amaze—
Cure all Complaints in 30 days!!"

He got a bottle of the stuff;
But finding this was not enough
Took seven more in seven hours—
He's sleeping now beneath the flowers
His humble cot is nicely draped,
His monument is bottle-shaped,
And bears this legend: "Trubbils ore.
He ain't got no komplaintz no more.
Waterz ov Life astownd—amaiz
Kure all Komplaintz in 30 daiz."

—*Wallace Irvin, in N. Y. Globe.*

"Since surgeons are so prone to leave things in the abdomen which don't belong there—such as eye-glasses, sponges, and artery clamps," writes a medical man, "and since there is a growing tendency to remove things which do belong there, one is in a quandary to know what to do with an old time belly-ache."

Thigenol Roche

Sodium salt of the sulphonic acid of a synthetic sulpho oil.

The one Soluble Sulphur Compound that is odorless on use.

A New York specialist in skin diseases (name omitted by request) writes:—"Thigenol apparently has the same good effects as ichthyol; in some instances, its soothing, antipruritic qualities seem to be greater than those of ichthyol."

Thigenol is employed chiefly in skin diseases and gynecological affections.

Digalen

Digitoxinum Solubile Cloetta.

A Distinct Advance in Digitalis Medication.

The most active glucoside of digitalis is now procurable in soluble form. Digalen may be employed per os, per enema, and by intravenous and subcutaneous injection. May be used wherever digitalis is indicated.

Marketed only in solution, because of infinitesimal dosage, in ½-oz. vials.

Thiocol Roche

Potassium Guaiacol-Sulphonate.

A Soluble Form of Guaiacol.

Odorless; non-irritating; readily assimilated.

Clinical reports, published during the past seven years, indicate the value of Thiocol in incipient tuberculosis, bronchitis, winter coughs, typhoid fever, pneumonia, malaria.

Procurable in three forms: Powder; 5-grn. Tablets; Syr. Thiocol Roche.

Airol Roche

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Odorless Wound Antiseptic.

"I have had marvellous results with Airol, and shall continue to use it in preference to iodoform," writes a physician of Holland, Indiana.

For samples and literature:—Mark the name of the medicament of which you desire a sample; cut out this ad, and mail it to us with your address.

THE HOFFMANN-LaROCHE CHEMICAL WORKS, 51-53 Maiden Lane, New York.

A1

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Marshall's Patent

CONVERTIBLE BUGGY CASE SADDLE BAGS

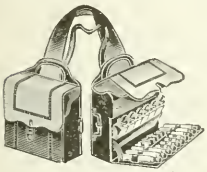
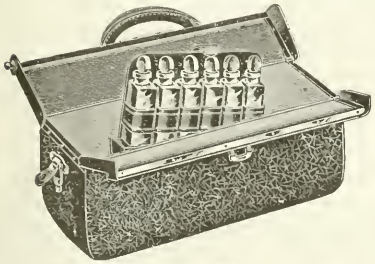
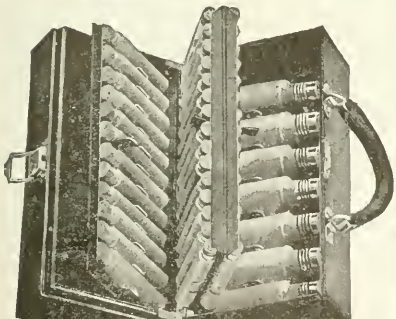


Fig 1 is Fig. 2 in Saddle Bag Form. One side open.

Fig. 2 is Fig. 1 in perfect Hand Case Form, closed





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Chicago Leather Goods Co.
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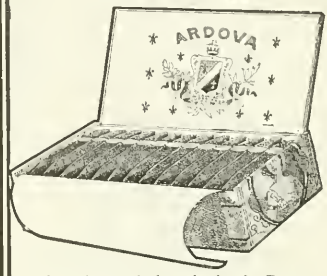
THE DOCTOR'S SMOKE



Here is the ideal smoke for the Doctor who travels the long road. Everyone who appreciates a mild, fragrant, easy smoking cigar should have a box of "Ardova" cigars. They are made particularly for the Doctors' use between calls, and after the long, hard day's work. They are genuine 10-cent Havana filled (4½ inches long) with Sumatra wrapper, burning a clear white ash and with an exquisite aroma. By the direct method of selling from factory to customer we eliminate all *jobbers, salesmen and retailers' profits* and thus we are able to offer a most liberal proposition. This is our offer. We will send prepaid to any reader of CLINICAL MEDICINE 50 of our "Ardova" cigars on receipt of $2.50. *If not satisfied after smoking five cigars he may send back the remainder of the box and we will refund the entire* $2.50 *promptly.*

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We refer by permission to Dr. Candler of Clinical Medicine as to our responsibility and the genuine worth of our cigars. We do not sell cigars on credit, but we do guarantee you perfect satisfaction. Our strictly cash business saves bookkeepers' salaries, clerical work, makes no bad debts, and our customers get the benefit in value.

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Enclosed find $2.50 for which please send me a box of 50 of your "Ardova" Cigars subject to my approval, money back if not satisfied.

Dr.....

Town.....

Date..... State.....

HAY FEVER.

There is abundant clinical evidence to establish the claim that uric antagon controls the progress of this disease and gives relief where its administration is continued throughout the season. Uric-antagon is a purely vegetable pharmaceutical preparation, combining the alterative properties of phytolacca, decandra, serenaca, cernuata, stillingia, sylvatica, cimicifuga, racemosa, aconitum, napellus a trace not sufficient to unduly depress heart action. It contains no salicylate, opium, colchicum or potassium

Favorable reports on the use of uric-antagon in hay fever have come from so many responsible physicians that a trial of this carefully compounded preparation should be given in all of these cases.

A full size bottle will be sent to any physician who will pay express age. Address the Anti-Uric Company, Peoria, Ill.

"FROM A HUMBLE ADMIRER."

Dear Bro. Abbott:

Don't neglect my "CLINIC," even if it is adorned in the latest "tailor made" style. It is to me the "same old friend," and I can not get along at all without it.

Alkaloidal practice, I am proud to see, is "the *coming science*" for lack of a better name or term to give it and no one is more pleased than one of your charter members of 15 years ago viz. your humble admirer,

H. H St. John.

Find this year's due enclosed as usual.

I recently attended a case of confinement of a primipara. The act of parturition was normal, but the patient had retention of the urine for nine days after her confinement. The young mother was not a hysterical subject, none of the usual diuretics common in such cases had the desired effect. The patient being in need of a cathartic also I instructed the husband to procure a box of Abbott's saline laxative and administer a cathartic dose in the evening. The husband was in town early next morning to inform me that the fiz remedy had the desired effect both on the bowels and kidneys

Sturgeon, Pa. R. L. Patterson, M. D.
Wisconsin Medical Recorder.

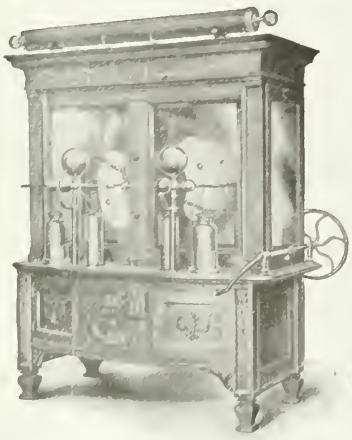
"Drug cure is wrought through local or general shock," says a writer in the *Medical Gleaner*, "and drugs furnish the shock. Some morbid conditions are curable mainly by psychology; some by hygiene; some by mechanics; some by chemics; some by diet, and some by drugs. According to my experience no drug will cure, or even help, any form of indigestion, only proper diet will do it."

Radium, says Berthelot, is a substance with an exceptional capacity for receiving the waves of energy emanating from the sun and giving them off.

Radium is probably a metallic element. Under the spectrum, radium possesses a number of characteristic lines not found in the spectra of other elements.

Radium is quoted at $2,721,555.99 a pound.

The Nelson Static Machine



is the result of 8 years of continuous application to this subject alone by the best obtainable electricians and mechanics.

All the latest and best ideas in static machine construction used. 4 types at from $150 to $450.

Our machine gives high voltage or tension. Proof: 16 inch discharge. Also great volume or amperage. Proof: Flame discharge of 4 inches.

Catalog No. 8 explains in detail.

Nelson Scientific Instrument Co.
18 W. Randolph Street
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THE HYGIENIC CARE OF THE SKIN
is oftentimes A MEDICAL PROBLEM

Bathing being a detail of necessity, it is conceded that special applications are essential to keep the skin soft and pliable while exercising its normal functions.

SANITOL, THE **OXYGEN** TOILET POWDER,

through its LIMOCINE constituent, liberates OXYGEN on contact with perspiration and consequently possesses

Marked Antiseptic and Deodorant Properties

in addition to its

Cooling, Soothing and Healing Characteristics

Hence its recommendation by conservative physicians as an ideal corrective of Profuse and Fetid Perspiration, the Chafing of Infants and Adults, Urticaria, Dermatitis, Pruritis and the various Rashes peculiar to the Summer Months.

A REVOLUTION IN TALCUM POWDERS.
IT'S THE OXYGEN IN IT.

THE RECOVERY AND MAINTENANCE OF SKIN HEALTH

SEND FOR A PACKAGE FOR YOUR WIFE

THE SANITOL CHEMICAL LABORATORY CO., St. Louis, Mo.

Infant Feeding in SUMMER

THE appalling infant mortality of the summer months is largely due to the dangerous quality of milk furnished most communities, and particularly the larger cities. Most peddled milk contains an enormously high bacterial content and the use of preservatives is by no means uncommon. Even boiling of milk, once it is tainted, does not eliminate danger. The rational solution lies in the use of

Highland Brand Evaporated Cream

Simply the purest of cow's milk produced on model dairy farms, handled with the most scrupulous cleanliness—sterilized and evaporated by a process which makes it easy of digestion and gives *absolute protection against all germs and other impurities*. It is the simplest, most unitorm and satisfactory substitute food for infants and also replaces fresh milk for household purposes.

Trial quantity sent on request.

HELVETIA MILK CONDENSING CO., Highland, Ill.

"The Japanese surgeons prepared for war in times of peace," is the gist of an article which appeared in the October number of the *Buffalo Medical Journal*. They were actual workers in the annual drills. Hospital tents were erected, and relief stations established, and supposedly wounded men were received and their imaginary injuries prepared for operative procedures as in actual warfare. Even the surgical instruments needed in a real operation were sterilized and dressings and bandages were applied as if there was need for them. The wounded men were carried to cots and watched just as if they were emerging from the influence of an anesthetic after the performance of an operation. Sick diet was prepared and even fed to the soldiers of peace. The supposedly dead men were removed without delay from hospitals and placed in dead house tents, where preparations were made to burn the bodies. In fact each man in the medical department, from the chief surgeon to the humblest orderly, was made ready to perform his duty when necessary.

Dr. S. Weir Mitchell recently read a paper before the Association of American Physicians on the fear of cats and the power to recognize their presence unseen and unheard. Dr. Mitchell had corresponded with many persons to get data and received 159 replies from different parts of the world and from many well-known people. Cases in which the animal betrayed its presence by its odor were excluded. Dr. Mitchell said although it has been claimed that Washington was disturbed by the presence of cats nothing could be found distinctly proving this assertion.

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We give green trading stamps to greenhorns.

Our carpets can't be beat.

While passing through our store you'll find pocketbooks greatly reduced.

Special today: Women's slippers and boy's pants away down.

Ladies' tailor-made suits half off.

Groceries: We sell imported Swiss cheese with all the holes cut out.

Sealskin sacques made to order. Ladies can furnish their own skin.

Restaurant: Our dried apples in a little water make a swell lunch.

Our granulated sugar is very fine. If you don't like it you can lump it.

Ladies' bathing suits cut almost to nothing.

Seventh floor: Manicuring and Chiropody Department. We have removed corns from all the crowned heads of Europe.—*Exchange.*

"A few years of our experiences as doctors," says Dr. Jonathan Wright in the *Medical Record*, accustom us to many, if not to all, of the real tragedies of life. This hardening process is a necessity. No sentient human being could long endure the agitation with which the medical novice views his first operation or undertakes his first responsibility, or looks first into the depths of human mystery and degradation. Happily the emotions are soon blunted, and this is an involuntary, almost an insensible, psychical change."

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The one distinctive feature of

Gray's Glycerine Tonic Comp.

is its uniform efficacy in debilitated patients of all ages--the child, the adult, the aged. It improves the appetite, creates digestive vigor, promotes assimilation and--most important--has no deleterious after effects.

Gray's Tonic has become the standard remedy for anaemia, malnutrition and nervous exhaustion, from whatever cause.

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"RECENT WORK IN INFANT FEEDING"

our new pamphlet, treating of advanced research by modern pædiatrists is now being mailed direct to every physician in the United States.

Incidentally this pamphlet tells of the recent changes in the formula of

NESTLÉ'S FOOD

by which the amount of starch is reduced one-half and the percentage of fats considerably increased. These changes are in line with modern teachings. They increase the nutritive value of the food and correct the tendency to constipation that is found in most infants.

Notify us if your copy of "Recent Work in Infant Feeding" miscarries.

HENRI NESTLÉ, 73 Warren St., NEW YORK

An interesting feature of the recent meeting of the Association of Military Surgeons of the United States, recently held at Detroit, was the introduction of Major C. H. Todd, of Kentucky, who was elected to membership this year. Major Todd is the president of the Association of the Medical Officers of the Army and Navy of the Confederacy. The major appeared in the uniform of the Confederate Army. The correspondent of the *New York Medical Record*, who was present at the meeting, says the Major was warmly received.

Field hospitals for sick and disabled horses will be used by the English army. The Japanese have already made use of them in Manchuria, where only 6 per cent of the animals have been lost.

The mortality among military surgeons during the war with Turkey, says a Russian medical journal, was much larger than among the soldiers. Comparison with other wars shows this danger to medical officers to be constant. The only instance on record in which the proportion of officers killed was greater than doctors was during the Franco-Prussian war of 1870-71.

Although physicians do not take a high place in comparative mortality tables, the obituary column of a recent issue of the *Medical Record*, which contained the records of ten deaths sent by correspondents in various parts of the country showed that five of the doctors were eighty years of age or older, and only two of the ten men were less than 72 years old.

The other night the Kings County Medical Society had an important meeting at which, besides many of the regular members, there were a considerable number of prominent persons not interested in medicine in a professional capacity, in attendance. The chairman was kept busy announcing that this doctor, and that doctor, and some other doctor was wanted at the telephone. Finally the presiding officer remarked, dryly, in words which allowed of reading between the lines: "This seems to be a very busy night."

COOK'S IMPERIAL CHAMPAGNE.
(EXTRA DRY.)

is particularly adapted to medicinal use, being retained by the stomach when other wines are rejected. It is made from the pure juice of the grape, naturally fermented, and, properly used, is a valuable and agreeable therapeutic agent.

As an American wine, it is free from the high import duty on champagne, which fact enables us to market it at one-half the cost of the European wines.

In atonic dyspepsia, vomiting, and in convalescence from acute diseases Cook's Imperial Champagne is held in high esteem by physicians.

Manufactured by The American Wine Company, St. Louis, Mo.

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Old Ulcers
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And those conditions caused by a blood dyscrasia—

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This unique book is of incalculable value to those called upon to assist at **Surgical Operations.** It is replete with practical instructions, useful hints and valuable "wrinkles" not elsewhere set down in print. It deals with the general conduct of the assistant; as to dressings, fracture reductions, etc., preparation of an operating room in a private dwelling (in practical detail); asepsis in all its practical bearings with definite instructions; the anesthetist; preservation and sterilization of the different kinds of surgical instruments and accessories; how to 'hand' instruments; technics of assistance in the various operative manipulations; preparation of the patient; immediate after-care; description of the important operations, step by step, **from the assistant's standpoint;** formulary of solutions; and surgical preparations, etc., etc.

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This popular work, now in its Third Edition, (over 6,000 copies have been sold) contains all the Essentials, Full Directions and Complete Instructions for the treatment of Rectal Diseases by Modern Conservative Methods; Hernia by Injections; Drug and Liquor Addiction; Cancer; Hydrocele and Varicocele; Strictures by Solvents; Diseases of the Prostate and Male Urethra, etc.

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403 Heed Building, PHILADELPHIA, PA.

THE FOUR TRACK NEWS.

If each of the forty thousand doctors who are subscribers to THE AMERICAN JOURNAL OF CLINICAL MEDICINE would subscribe for *The Four-Track News*, and place that beautiful magazine on the table of his waiting-room, so that patients could look it over while they are waiting to see "the doctor," there would be a marked change in the condition of a great many of them.

There are things that are better than medicine, and *The Four-Track News* is one of them.

A word to the wise doctor is better than a volume of proverbs to a man who can't read.

The *Four-Track News* is an illustrated magazine of travel, and the education that comes from travel, and will do you good, whether you ever travel or not. Subscription $1.00 per year.

Address, George H. Daniels, Publisher, 57 East 42d Street, New York City.

Some time ago Street Cleaning Commissioner Woodbury of New York City made public the result of his medical examination of the sweepers of the department. This act was prompted by the report that 25 per cent of the men were suffering from tuberculosis. But the investigation of the commissioner revealed the fact that of 283 men afflicted with pulmonary complaints, only 60 had tuberculosis.

Now that the employees are assured that their work is not peculiarly dangerous, it is apropos to suggest that there should be no stint in the amount of water used to settle the dust while the men are at work and at all other times.

PACIFIC COAST TOURS.

A new booklet just issued under this title should be in the hands of every physician who expects to make a trip west of the Rockies this year.

It outlines all the routes to the Coast, shows maps of each, contains a large map of the country from the Great Lakes to the Coast and has a great deal of valuable information about the side trips, interesting sights, etc.

The booklet is finely printed and handsomely illustrated. Its use will save you the trouble of getting and combining the separate booklets of the many different roads reaching the Pacific.

Your request on a postal, mentioning the name of this JOURNAL, will bring a copy by return mail.

P. S. EUSTIS, Passenger Traffic Manager.
Chicago.

"GET THE HABIT."

Today I was reading a copy of the CLINIC of August 15, and it was so good that I made up my mind that I would be a back "number" in the medical profession if I did not "get the habit" of reading "CLINICAL MEDICINE."

JACOB C. GLASS.
Greensburg, Ind.

An eminent physician, giving evidence in a will case, being asked which facts he chiefly relied upon as establishing the insanity of the testator, replied: "Chiefly upon his unquestioning faith in the value of my prescriptions."

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A remedy representing the chief phosphorus reserve substance generated in green plants, and extracted in a form that is most readily assimilable in the human economy without the slightest toxicity. It is of the greatest value in **neurasthenia, rachitis, chlorosis, anemia, phthisis, nervous diseases,** generally, and wherever phosphorus is indicated. It promptly increases metabolistic activity and promotes nutrition. Increases weight and strength to a very marked degree.

For infants up to two years a neutral, soluble preparation of **Phytin** and sugar of milk in 2.5 gram tablets is supplied under the name of

FORTOSSAN

Fortossan stimulates the appetite, improves the nourishment of the child and helps it to normal growth. Does not prevent the sterilization of the milk after being added to it.

Specially recommended in cases of **artificial feeding, retarded development, slow growth, rachitis, scrofula,** and **convalescence** of all description.

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Reduction on Original Specialties 20 per cent., and 40 per cent. on Fluid Extracts, Elixirs and Tablets.

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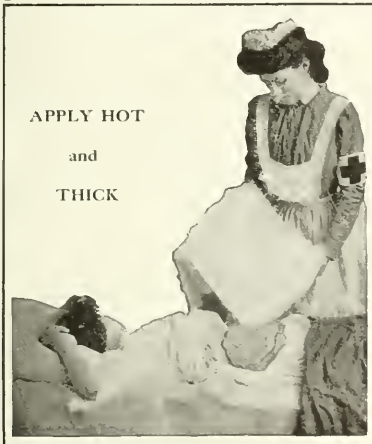

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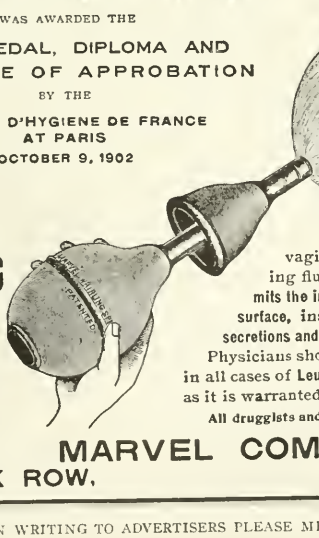

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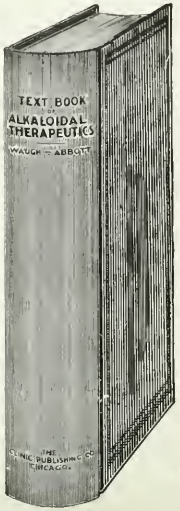

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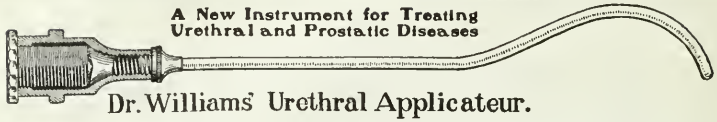
A New Instrument for Treating Urethral and Prostatic Diseases



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THE medicament, contained in the bulb, is forced out through the holes in the eye of the catheter by screwing down the plunger. Cauterant, antiphlogistic, analgesic and astringent applications, in the form of ointments, are readily applied to the *colliculus seminalis* and deep urethra, in chronic urethritis, stricture, gonorrhea, gleet, spermatorrhea, premature *emissio seminis in coitus*, dribbling of urine from loss of contractility, enlarged prostate, etc. For cauterizing the ejaculatory ducts and *caput gallinaginis*, it is preferable to Lallemande's porte caustique. All medicaments employed in urethral crayons can be better incorporated in ointments. By passing the stem down to the prostate, the ointment is extruded as the instrument is withdrawn, applying it to the entire urethral surface. This brings it in contact with every part of the affected membrane for a longer time than injections, and keeps the inflamed, granulated, matterlog surfaces separated—*a sine qua non* in the healing process. Directions and Formulae with the Instrument, by mail. Reprints and formulas on application. *Price, $3.50. A set of three, two plain curve and one double curve* (see cut) *for prostatic disease, $9.00. A full set is desirable to avoid cleaning out and refilling for different purposes.*

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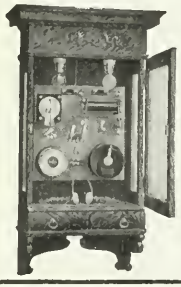

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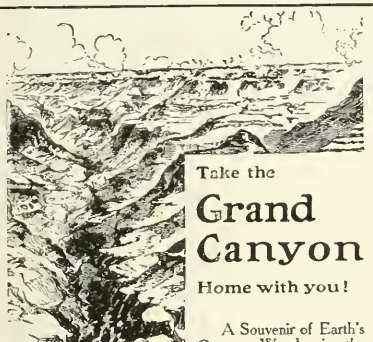

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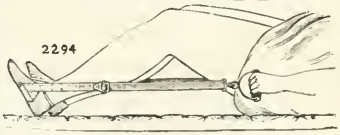

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Calcium Sulphocarbolate,
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Dosage. Adult, one or two tablets every two to six hours, according to circumstances, children in proportion. A full effect has been obtained when the feces are voided a natural color and without odor.
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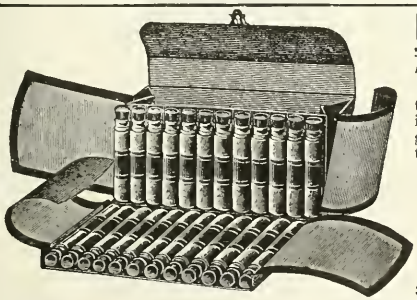

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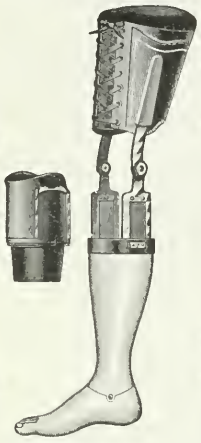

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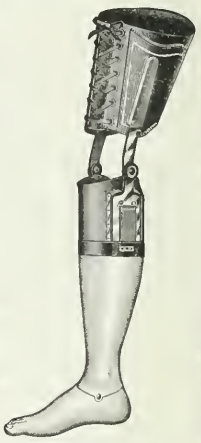

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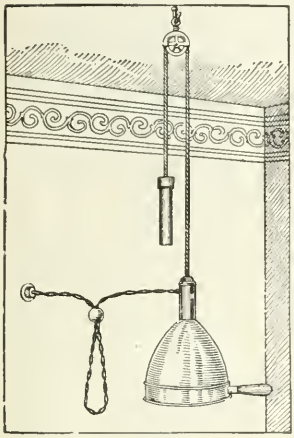

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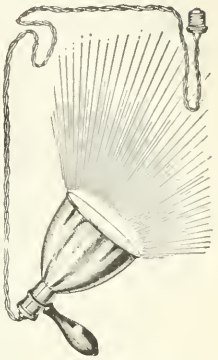

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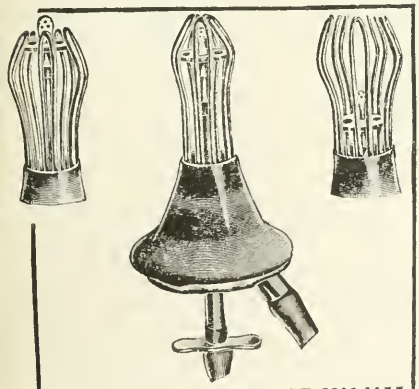

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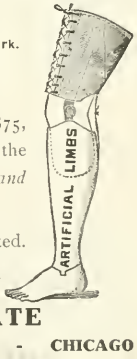

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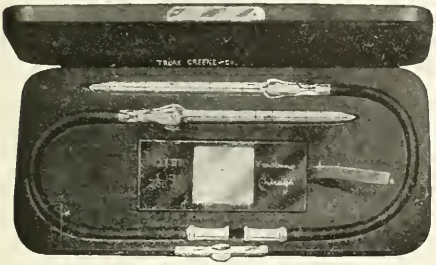

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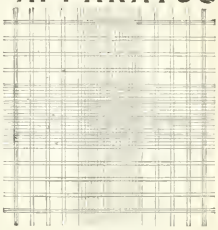

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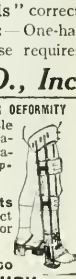

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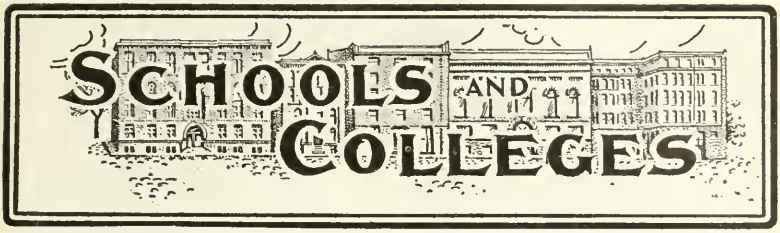

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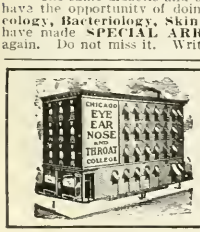

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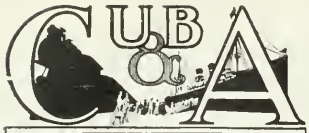

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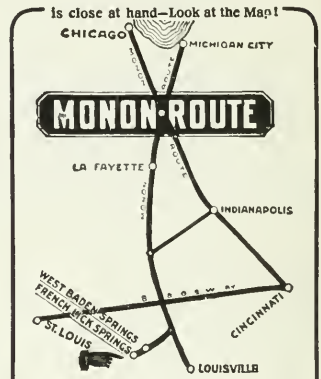

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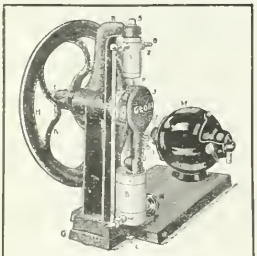

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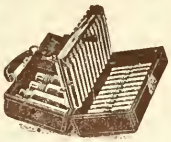

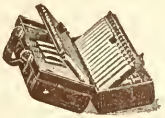

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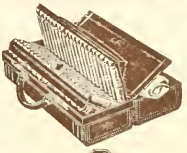

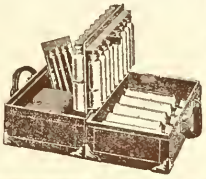

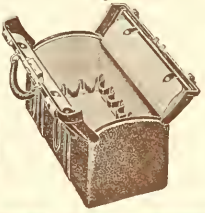

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